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ABSTRACT

Results are presented for a study of the in- and out-of-class literacy demands made on community college students and their responses to these demands. After an executive summary, introductory material reviews the issues of adult literacy and literacy development in the community college. The first of the report's two sections describes methodological assumptions and procedures and presents findings regarding literacy development, factors affecting student progress, instructional organization, and student coping strategies and expectations. It also discusses the study's implications for admissions, curricular decisions, assessment, articulation, grading, and staffing. The report's second section presents detailed findings. Chapter I discusses the selection of the two community college sites involved in the study, Chapter II considers student services, and Chapter III examines attrition from the perspective of student paths through the program. In Chapter IV, developmental programs are reviewed, with emphasis on reading skills and instruction. Mathematics assessment and instruction and math anxiety are examined in Chapter V, while Chapter VI considers English assessment and instruction, tutoring, technical writing, and general issues related to transfer courses. Chapters VII, VIII, and IX study literacy demands; text use; and job preparation in three vocational programs. The learning resources center is considered in Chapter X. A readability analysis of commonly-used texts and instructor comments are included in the appendices. (KL)

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A Report on Theory and Method for the Study of Literacy Development in Community Colleges

Technical Report
for Project NIE-400-78-0600

Submitted to

The National Institute of Education
Department of Education
Washington, D.C.

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The University of Texas at Austin
Department of Educational Administration
Program in Community College Education
November, 1981

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Preface

In October of 1978, the National Institute of Education funded the Program in Community College Education at the University of Texas at Austin to conduct a study of literacy development in the community college with a special focus upon the adaptation of minority and other students to the community college environment and its to them. The proposal was a University of Texas jointly-sponsored project with the American Association of Community and Junior Colleges (AACJC). The AACJC provided initial encouragement to NIE for funding and offered to disseminate any interim progress statements, the technical report to two-year colleges in the United States and Canada, and the final project report in its journal.

The NIE elected to fund two projects from those proposals responding to the RFP; the duo-arrangement would permit a "compare and contrast" analyses in the last stages of the research period that would expand the contributions of either project singularly. The second funded project was housed in the Department of Higher Education at Arizona State University in Tempe. This was a first funding by NIE of research in the community college arena and a first joint effort toward arriving at an important literacy picture created -- singularly at first and then in a combining perspective -- by two projects answering the same RFP and working independently of each other. The projects were each to be funded for 36 months, subject to annual reviews at which junctures refunding decisions would be made. The Texas project received a total award of $518,682.00.

Background of the Project

The Basic Skills Program -- created in 1973 as one of five priority programs in the NIE -- cites as its purpose:

> To investigate through research and development, ways to aid all students to obtain skills essential for functioning adequately in schools and society (as noted in the RFP: 1).

The NIE, as a result of efforts within this program to determine lacunae in reading research and development activities, declared three documents -- produced following a Learning Division Conference held in Washington, D. C., in August, 1974 -- to be the basic premises upon which the RFP for this present project was born: *Assessment of Reading Comprehension (#5)*, *Reading Comprehension and High School Graduate (#7)*, *Reading Strategies for Different Cultural and Linguistic Groups (#9)*. With these internal directives and timely interest of the AACJC in NIE's funding of community college research, these three reports provided ample evidence that there was a need for research on basic literacy skills and that such research would be appropriate at the community college level. Initially, the focus was upon the examination of literacy demands of the academic, occupational, and personal/societal aspects of the college with special attention to bilingual and bicultural populations. NIE discussions with individuals and organizations -- notably with the AACJC and supporters whose special interests and professional expertise were in the community colleges -- began as to the design of potential proposals; and through discussions, the initial focus of discussion broadened to include the interaction of the counseling, academic, and vocational subsystems. The final proposal, created by the NIE, acknowledged the dramatic impact of the community college movement on American education and proposed a study of that context as it affects literacy development.

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We express sincere thanks to the research sites for allowing the researchers access to institutional documents, personnel, and clients. To the faculty involved in our study go our heartfelt thanks for having the courage to welcome us into your classrooms and for spending precious time and effort in support of our research activities. The results of your involvement--as they appear in this report--should provide valuable data for other community college practitioners.

We gratefully acknowledge the tireless efforts of the research staff. To Jan Nespor, our theoretical mainstay and primary psychological bulwark, we pay special tribute; to Rene Medina, Carol Rubio, Pat Taylor, Tom Logan, and Donald Yates we say thanks for devotion to task and attention to so many of the often tedious but always interesting details of this project. To Carol Truett, Susan Higgins, Terry Mason, and William Brock, who left the project for professional and educational reasons of their own prior to its final days, we wish to acknowledge the strong technical assistance you provided to major research foci. To Billy Roberts, our readability technician, administrator of the ongoing literature review, and most importantly, our constant guardian angel even after leaving the project for full-time teaching, we pledge commitment to following your career and to meeting for lunch. To John E. Roueche and George A. Baker--principal investigators of the study--goes our appreciation for their support of our efforts and their willingness to share time and expertise. As for ourselves, we each thankfully acknowledge the untiring perseverance that has allowed us to complete an exceptionally fine project.

Suanne D. Roueche
Director

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November 22, 1981
Austin, Texas

EXECUTIVE SUMMARY

The research presented in this report is the product of two years of intensive observations and interviewing in a community college setting (within a three-year study). The goal of the research was to generate a body of rich descriptive data on the uses of literacy in the community college: that is, the types of literacy demands made on students (both within the classrooms, and in administrative contexts such as registration, course selection and so on) and the students' responses to those demands. Tentative conclusions and recommendations are also offered. This executive summary includes the following sections:

A statement of the need for investigating adult literacy.
A statement of the reasons for focusing on the community college setting.
A statement of the research questions.
A statement of the research methods used to investigate these questions.
A summary of findings on the research questions.
A discussion of the implications of the research.
A list of the major recommendations made on the basis of this research.
A summary of the chapters of the report.

Investigating Adult Literacy

There has been a growing concern in recent years that a number of Americans are leaving our high schools (with or without diplomas) lacking the reading, writing and math skills needed in a wide range of situations (both on and off the job) (see, for example, Northcutt, 1975). This concern has prompted NIE to commission several studies to investigate the types of literacy demands made on adults in a number of contexts, as well as to study the resources available to adults to increase their literacy skills. This is one such study, focusing on the literacy demands made on students in community colleges.

The Community College As a Setting for Studying Adult Literacy Development

The choice of the community college as the setting for this research stems from several factors. First, the community college is the fastest growing institution in higher education. Thirty years ago fewer than 10% of all students in higher education were in community colleges; today the figure is closer to 40%. Second, the community college plays the role in higher education of dealing with students who leave the public school system lacking the literacy and academic skills necessary to gain access to four-year institutions. In many states, and in the state in which the present study was conducted, "compensatory" programs in community colleges are mandated by law. Third, the community college, especially in the vocational program areas, makes specific claims about preparing students with the skills necessary to perform the occupations corresponding to those vocational programs.

Statement of the Research Questions

In the scope of work and task specifications of the Request for Proposal from which this project derived, four distinct research areas were defined for the investigative portion of the project. For purposes of exposition these research areas are presented here in an order different from that in which they appeared in the RFP. The order of presentation has no relation to the relative importance of the research questions.

Research Questions from the RFP

1. What are the implications of the use of multidisciplinary research in studies of this type?
2. What type of counseling information is provided to students, and what is the usefulness of this information to the students?
3. What kinds of administrative tasks do students encounter, and how do these tasks affect the attrition or retention of students?
4. What are the literacy demands of selected courses and administrative tasks, and how do these relate to the literacy skills of the students?

The first three of these questions are dealt with in specific chapters of this report: methodological implications in the chapter on Methodology, counseling issues in the chapter on Student Services Subsystem: Counseling Component, and attrition issues in the chapter on Attrition and Scholastic Probation (these latter two chapters discuss overlapping issues and should be read together).

The problem area at which we directed most of our efforts is that of studying the literacy demands of selected courses and administrative tasks in relation to the literacy skills of the students.

The first step we took was to generate the following working definition of "literacy." (The processes through which this definition was determined are discussed in the Methodology chapter.)

> Literacy is the ability to perform reading, writing, and figuring tasks consonant with the expectations and needs of the individual.
> Assumption I: The expectations and needs of the individual are socially (and institutionally) constrained.
> Assumption II: Literacy is a means by which individuals perceive new alternatives for action.

By defining literacy in terms of the "needs and expectations" of the individual, and by allowing that these needs and expectations are socially constrained or determined (in the sense of putting limits or pressures on the individual), we are essentially saying that literacy is situationally specific (the situations of interest to us being community college classrooms, or other organizational contexts of the colleges). What aspects of these situations should we refer to as "literacy demands"? We can begin with the assumption that a major purpose of the community college is to transmit knowledge to its students. The school also awards formal markers (e.g., grades, certficates, degrees) which are taken as symbols of the knowledge that the students are supposed to have acquired. These markers are crucial resources in the students' attempts to acquire jobs or gain access to other educational institutions after they leave the community college. We can further assume that the students' acquisition of knowledge, or of the credentialing markers (whose relation to the knowledge must be considered problematic), is contingent upon their ability to solve communicative and performative problems arising out of the organization procedures of the college or out of direct classroom experience. We can speak of these problems as "literacy demands" when they require the students to process, produce, or manipulate visibly conveyed language. "Literacy development," then, refers to the abilities of students to meet the literacy demands of increasingly broader ranges of situations. The "literacy skills" of the students, for our purposes, were therefore defined as the students' abilities to solve the communicative and performative problems that constituted the literacy demands. We were not particularly interested in trying to define the "level" of these abilities or in trying to measure them. Rather, we were interested in trying to describe the strategies or procedures that the students used to meet the literacy demands.

Using the conceptual distinctions outlined above, we restated the "literacy demand" question from the RFP in terms of the following questions:

I. What sorts of literacy demands (communicative and performative problems involving the use of visibly conveyed language which must be solved by the students if they are to acquire the desired grades) are found in various types of classrooms in the community college?

Since individual classroom situations are but various points in a student's academic career in the institution, we must also ask:

II. What are some factors that influence students' academic careers--the pathways they travel through the various programs and curricula of the college?

Classroom situations are not rigidly defined, immutable contexts--they are created and designed by the instructors and administrators who teach in them and are officially responsible for their conduct. Therefore, we must ask:

III. What are the organizational processes involved in the construction of course curricula and in the design of the literacy demands of individual courses?

IV. How are the literacy demands of the various courses that make up student careers related to each other? (The organizational processes that affect students' career paths are considered in the chapter on Student Services.)

Finally, while instructors and administrators have a great amount of control over the formal organization of the classroom situation, the interaction that takes place in the classrooms is always a product of the joint efforts of instructors and students. Therefore, we must ask:

V. What sorts of behaviors and interactions take place in the classroom that influence the strategies that students use in meeting the literacy demands of those classes?

VI. What sets of expectations do students bring with them to the classroom that affect their strategies for dealing with the literacy demands of those classes?

The six questions above are discussed in the chapter Findings and Interpretations. Question I is discussed in a section titled "Literacy Demands," question II in a section called "Student Careers," questions III and IV in a section called "The Organization of Instruction," and questions V and VI in the section "Student Strategies."

In addition to the research questions specifically set out in the contract, the RFP also allowed for the investigation of research areas "deemed appropriate on the basis" of a review of the literature, or "suggested by work in-progress." Several additional research questions were generated on this basis:

VII. What sorts of assumptions or perspectives underlie the teaching of reading, writing and math (the "basic" literacy skills) in the community college?

VIII. What are the linkages between community college programs and similar programs at four-year colleges?

IX. What are the linkages between community college "vocational" programs and the vocations for which these programs are training students?

These three questions are discussed in various chapters in Part II. Question VII is discussed in the Reading chapter, especially in the "Discussion" section. Question VIII is discussed in the Accounting chapter, and question IX is discussed in the Child Care, Office Occupations, and Accounting chapters.

Methods Used for Investigating the Research Questions

The methodological approach adopted in this study is primarily qualitative (a detailed description of the methodology is to be found in Chapter I, Part I). We conducted classroom observations in selected courses (in such cases as the courses had curricular autonomy) and programs (in cases where the courses of the programs were interdependent). (An explanation of the rationales for the selection of particular loci of study is found in Chapter I, Part II.)

Observations were conducted for a minimum of one semester, though in several cases courses and programs were of sufficient importance, or presented such complexities, that observations were conducted in two or more consecutive semesters.

Students and their instructors in the classrooms under observation were interviewed by the researchers responsible for the observations. Efforts were made to interview all of the instructors whose classes were observed, as well as their department heads and the full-time instructors who might be responsible for the development of the curricula of the classes. Formal interview schedules were experimented with, but these were abandoned when it was determined that the roles and influence of the instructors varied greatly both within and across courses. Department heads and full-time instructors were our major sources of information on the rationales for and theories underlying the syllabi, textbook selections, and generally the curricula of the courses. The instructors whose classes we observed were interviewed on their methods of instruction and evaluation, and their perceptions of and attitudes toward their students, as well as on their understanding and interpretation of the curriculum. All of the instructor interviews were, therefore, concretely grounded in particular instances of course planning and classroom practice.

Student interviews similarly focused on the activities, tasks, and demands that we observed being required of them in our classroom observations. In addition, we also tried to ascertain the students' motivations and goals in taking the courses, their biographical characteristics that seemed to influence these motivations, and the skills that they demonstrated in class.

Instructor interviews were taped, with frequent untaped and informal conversations between instructor and researcher. Our knowledge of the students draws heavily not only on taped interviews, but, importantly, informal conversations with students and groups of students before and after classes, and comments made by students in class.

Finally, every effort was made to gain access to and observe organizational processes such as registration, orientation for students and new faculty, staff meetings, faculty meetings on organizational processes, and so on.

The research which is reported in the later, descriptive chapters of this report is based on a total of 440 observations of classrooms, 52 taped interviews with instructors, and 163 taped interviews with students. (Numerous observations and interviews were also conducted in areas--such as History, Government, and Criminal Justice classes--which are not discussed in this final report.)

A Summary of the Major Findings on the Research Questions

Implications of the Multidisciplinary Approach. The use of researchers from a variety of disciplines has a number of benefits. The background assumptions of each discipline (its "trained incapacities") may be made explicit and must be defended and rethought as the researchers argue the research problems among themselves. There is, therefore, less likelihood that the research will be directed toward issues arising solely out of disciplinary research programs, and a greater likelihood that the research questions will be conceptualized and investigated in terms of frameworks which would not be available in unidisciplinary research.

There are also drawbacks to multidisciplinary research. It is unlikely that researchers from different disciplines will ever arrive at entirely common ground (though each researcher's framework will be informed by the others in a way not to be found in unidisciplinary research). Thus, each researcher's work will be slightly different from the others in its aims, methods and manner of presentation. There will, therefore, be inconsistencies in the different research products which make up the multidisciplinary approach (the reader will find, for example, that the later descriptive chapters of this report are not entirely comparable).

A weighing of the costs and benefits of multidisciplinary research lead us to the conclusion that this type of research is highly valuable for exploratory investigations, that it leads to frameworks and insights not available through other types of research, but that these frameworks are in a sense experimental and the insights tentative. Multidisciplinary research may, therefore, have its greatest value as a preliminary type of research in which old disciplinary assumptions are challenged and new interdisciplinary frameworks are generated or suggested. The "findings" and "implications" of multidisciplinary research should, therefore, be taken as grounded theories or hypotheses to be investigated in later research. (See Chapter I, Part I.)

Types of Counseling Information. Counseling information can be subdivided into four categories: specific directions, choice, change, and confusion-reduction. The Enrollment Phase: orientation and registration primarily deal with specific directions--where to go for basic skills assessment, academic advising, registration--what to do there; where to go for various college services, what forms and how to fill them out. Academic Advising, however, involves both specific directions and choice information. The student must decide how to use information on his basic skills levels, whether to declare a major and which one, how many hours to take, in which order, and how to schedule his classes. There is no time to do career counseling in the orientation time frame; therefore, student declaration of a major or inclination toward a certain subject is used as the baseline for course selection. The college catalog is the main tool used by advisors/counselors and students in advising for course selection. The process/information is useful in that a student makes choices and gets registered in the college. However, major declaration is frequently based on inadequate, inaccurate or partial information about the field. Advisors frequently do not have/take time to explore with students what it means to be a "computer science major," for example.

The counseling function removed from the enrollment phase time frame includes information in the choice, change, and confusion-reduction categories. Some students specifically seek out counselors/advisors for specific kinds of concerns which include, for example, choices about career options or whether to stay in school or work for awhile, what to do to keep from failing a course, or how to handle the loss of a loved one. The counselor attempts to derive information from the student, then to paraphrase for the student what he heard him say, for both to consider in the process the student must use to resolve his problem(s). The counselor provides either specific information, if he has it, or refers the student to other sources, if he does not. Whether the information/process of counseling is useful or not depends on the student--his attitude toward counseling, his independence or dependence, his willingness/ability to tackle the problems, his understanding of what the counselor is saying to him, etc. Counselors express frustration because so often they do not know the results of the efforts they contribute to student problem-solving. (See Chapter II, Part II.)

Types of Literacy Demands in the Community College Classrooms. We found it most useful to provide a framework for looking at literacy demands in terms of the curricular functions of different types of classes and the types of knowledge taught in the college classrooms. We found that courses could be placed along a continuum from those which served a general-function curricularly, to those which served a specific-function. General-function courses are usually administratively located in the "academic-transfer" program areas of the college, but they are intended to serve students in both the transfer and vocational areas. These courses are usually engaged in teaching what would be called "basic skills" (reading, writing, math). Specific-function courses are administratively located within programs of study in which students major. Their purpose is to provide the students with those majors the skills or knowledge useful for the specific vocation or academic career to which the program is linked. These extremes are analytical types. Bearing this in mind, we provide a model of the types of literacy demands found in each. The literacy demands found in general-function courses are products of the assumptions of the instructors about the nature of the skills being taught and the assumptions about these skills embedded in the textbooks. These assumptions tend toward the notion that the skills taught exist in some way independent of context--in the sense that the use to which students are to put these skills are not considered. There is also an assumption (implicit or explicit) that the students in these courses are embarked upon academic career paths--that is, the pursuit of education in academic-transfer types of programs. There is little or no attempt to link these exercises or assignments to the types of tasks or problem situations which the students would be likely to encounter either in other classrooms or in the practice of a vocation. The literacy demands of specific-function classes are much more likely to be related to or modeled on the literacy demands of non-community college contexts for which the students are preparing themselves. However, basic skills are not likely to be explicitly taught or evaluated in specific-function courses. Thus, students can be expected to develop their literacy skills only in an indirect way. Many qualifications could be made for these generalizations, and the reader is urged to examine section of Chapter II, Part I on "Literacy Demands," and to look at the various chapters in Part II dealing with various specific- and general-function courses.

Student Careers. (1) Student academic careers--the pathways they travel through the various programs and curricula of the college--are influenced by a multitude of factors: absence of student culture, complex personal restraints, reasons for attending college, their choice of major and the relationship of the courses required in that major, their expectations of college life, the skills, abilities, and knowledge they bring with them to college, as well as instructor style and classroom practices. The complex interplay of these factors impact student perspectives of the usefulness of the college experiences and their way of dealing with the school situation. (2) Concerning the lack of student culture, there is no on-going environmental support for the students: they do not engage in the isolated rituals of day-in and day-out concentration on the academic environment nor do they actively engage in social interaction with their peers. Furthermore, these students face decisions concerning academic tasks and personal constraints that differentiate them from their four-year counterparts. (3) Over 70% of the community college students work (many of them over 30 hours per week). The strains put on the students who have to work full- or part-time and tend to other familial commitments do not translate into conflicts with schoolwork in any simple or direct way. (4) Course selection is a product of interaction of reasons for attending college, choice of major, and the information that the student receives or acquires concerning the appropriate career path for accomplishing that purpose (assessment and advising). Once a student enrolls in a course, his purpose in that course becomes a product of the interaction of the instructor's classroom practice (shaped by previous training and experience, the organizational situation of the instructor, this in turn being shaped by the place of the program in the organization of the school, and especially by the linkages between the program and occupational structure) with the student's set of expectations leading to his taking the course. Finally, the student's purpose is a product of the sense which the student comes to possess (as a result of classroom interaction) of the relevance of the course to his future. (6) The strains these various factors place on the students' resources seem to be reflected in specific instances.

There is a strain related to certain types of courses--courses that require the greatest expenditure of time. Instructional style of the instructor is another; it appears that the more effective the instructor is at covering the content in class and specifying the material that will appear on exams, the easier it is for students who have heavy time commitments to work and negotiate the course. Students may choose to withdraw from a course with heavy literacy demands and "shop around" for an instructor who will present the context in a style more compatible with their study needs.

The Organization of Instruction. (1) The processes of structuring curricula seem to vary in relation to two primary features: (a) type and amount of control exerted by departmental administrators--department heads and their full-time instructors are able to exert a large amount of control over the hiring of part-time instructors in their departments and in this manner they can control to some extent how a course is taught by selecting for instructors with certain characteristics; (b) the size of the department and what it teaches--the amount and type of control department heads exert on their instructors depends on the size of the department and what it teaches. These processes have consequences for the coherence of programs of study, and therefore, for the academic careers of the students. (2) Departments or programs whose professed function is to teach "skills" to the students (i.e., reading, writing, math) tend to try to control their instructors by controlling the theories of subject matter that these instructors hold. The manner of control varies with the size of the program. (3) In programs or departments with large numbers of faculty members (and usually this means a very low full-time/part-time instructor ratio) control usually takes the form of a standardized syllabus and tight control over textbook selection. That is, rather than trying to assure a certain type of instruction through hiring instructors with specific theoretical allegiances, the theories are embedded in curriculum. Sometimes this may result in situations in which some part-time instructors teach a course based upon a theoretical approach which they may not understand or agree with. (4) In programs or departments with small faculties (and with relatively high full-time/part-time instructor ratios) the instructor selection process plays a much more significant role--instructors being quizzed in their hiring interviews about their training and theoretical preferences in teaching the "skill." The standardization of the curriculum may or may not take place. (5) One of the important differences between the "skill" courses and what we are calling "content" courses is that all of the courses in a program designed to teach a specific skill (e.g., the developmental reading classes and the skill of reading) are considered to be intrinsically related (perhaps hierarchically related in terms of the "level" of the skill they teach). In "content" programs, however, there may be a variety of courses whose relationship to each other is ambiguous. This stems from the fact that the organizing principle of these types of programs is not a unitarily-conceived, autonomous skill or ability, but the set of practical knowledge needed to perform an occupation (for the "vocational" programs) or the set of general academic knowledge needed to qualify the student for admission to a four-year institution (for the "transfer" programs). (6) If the skills or knowledge taught in a content program are "general" rather than "specialized"--that is, if it is reasonable that one instructor be expected to know or possess all of the skills or knowledge of all the courses of the program, the department heads or full-time instructors may attempt to exert greater control over the design of the syllabi of each course (even if they do not teach it) and to select the textbooks. Correlatively, the part-time instructors selected to teach these courses may not have any special training or experience in the subject matter of the courses they are hired to teach. (7) The very processes that contribute to the coherence of administratively defined programs also work at the same time to cut these programs off from other programs in the college. Each program becomes an autonomous entity, pursuing the dynamic set for it by its department head and full-time instructors, with little regard for making itself relevant to other programs in the college. (8) There is a disjunction between the administrative organization of departments, programs, and so on, and the academic careers of the students. The organization of instruction tends to strengthen the coherence of administratively-defined units of the college, while weakening the coherence between units. The typical academic career of the student includes general-, general-specific, and specific-function courses; it seems that the organization of instruction, by initiating processes strengthening the autonomy and isolation of all programs, encourages the administrators of the general-function courses to structure them in such a way that they lack any relevance to each other.

Student Strategies. (1) In order to negotiate content that is removed from familiar frameworks or appears irrelevant to vocational or educational demands, students are inclined to read only teacher-prepared materials and notes written on the board and limit their learning activities to memorization of terms and concepts. (2) Students ignore text-reading when the texts (a) are difficult to read and have numerous technical terms, (b) have content that is not addressed by examinations, (c) have content that does not relate to the practical demands of their work or other ecucational situations, (d) cover material covered by the instructor in notes and lecture. (3) Students tend to identify important content: material written on the board, included on teacher-preared hand-outs ("advance-organizers" or study guides), and restrict themselves to that content when they discover that this material is all they are required to know. However, the more relevant the material is to their work or other educational demands, the more effort they appear to make to create linkages to practicality--e.g., asking more questions of relationships than questions of clarification. (4) Students do not choose to ignore the text but rather choose the path of least resistance in the face of pressing time constraints or lack of cognitive resources; they do read texts that are (1) easy to read and (2) interesting. (5) Students prefer instructors whose lectures are punctuated by organized and well-prepared blackboard instruction, who allow them adequate time for copying all material, and who review the material orally prior to changing lecture direction. (6) Students with pressing time commitment or difficulties with content presentation drop those courses consuming the most amounts of time and/or "shop around" (by withdrawing and re-enrolling with another instructor another semester) for more suitable teaching styles.

Student Expectations. Students expect the college to have "done more for them" when they experience difficulties with course work; they blame the institution for allowing them to enroll in courses for which they are not prepared or enroll in courses that did not provide them with the skills or knowledge they needed to do well in subsequent courses. (2) Students have unrealistic expectations about the level of commitment they can make to school in the face of work and family responsibilities (non-productive grades--e.g., W and I grades are common markers). (3) Students with specific plans for a major course of study expect less of counselors than do those with indefinite plans or concerns about abilities to be successful in college. (4) While all students expect to receive grades for their efforts in class--i.e., they have to meet at least the minimum literacy demands--there are varying levels of commitment depending upon the students' expectation about what the course will and should provide (that is, the more relevance to need, the more inclined the students are to do more than "just make the grade").

Major Implications from the Findings of the Research

The major implication of this study is that for systematic literacy development to occur in the community college, there must be organized and concerted administrative and instructional effort to effect it. (1) There is a disjunction between the administrative organization of departments, programs, and so on, and the academic careers of students. Different departments and programs of the college possess a high degree of relative autonomy in curriculum design that often results in overlaps, redundancies, and disjunctions among courses with similar goals in different programs and between programs. (2) Some courses that have, traditionally, been required of all degree-seeking students and intended to serve students in both academic and vocational programs have weak or nonexistent links between themselves and the programs that they purport to serve. (3) "Skill" courses, usually explicitly and primarily concerned with teaching basic skills of reading, writing, and math serve general functions but are very likely to be only loosely, if at all, integrated with the other courses with which they are directly linked programmatically--e.g., reading and writing with English. (4) Faculty assumptions about the nature of basic skills are heavily influenced by their training and to assumptions embedded in the textbooks they use: they generally conceive of skills as being independent of context--in the sense that the use to which the skills are put is not generally considered (i.e., there is little or no attempt to link learning activities to types of tasks or problem situations which the students would be likely to encounter in other classrooms or in the practice of a vocation. (5) The less relevant course content appears to the student and the more pressured he is for time and cognitive resources to negotiate it, the more likely that he will merely attempt to "satisfice" in the general-function courses by finding out what the instructor wants and giving it to him. The more relevant the course content appears, the more inclined the student is to attempt to get more from a course than a passing grade--e.g., asking questions to relate course content to practical demands. (7) Types of knowledge transmitted by the course determine the strategies that students use to meet the literacy demands. The further the content is removed from familiar framework or relevancy to other demands, the more inclined the student is to ask "questions of content" and resort to rote learning activities (described by exams and instructor strategies). The more familiar and relevant the content, the more likely that the student will ask questions of relationships. (8) Reading and writing are not required across the curriculum in purposeful ways; low-level cognitive activities are typical instructional and evaluative strategies. (9) Students do not read texts that are considered too difficult, with content removed from practicality (particularly when instructors cover the same content in class); they do read texts identified as less difficult and interesting and choose to use them as "organizers" of instructor lectures/discussions. (10) Voluntary assessment for basic skills and voluntary enrollment in developmental courses do not significantly affect the populations of those classes compared to others--i.e., students enrolling in Freshman English possess similar skill levels to those students who chose to enroll in the developmental sequence; further, neither the assessment nor the development of skills appear to predict student selection of courses nor performance in the college. (11) Students appear to enter the college for one of three reasons: work-related, work toward eventual attainment of a degree, or no specific educational or occupational goals; students who have selected a major course of study expect minimal support from counselors, and students who are undecided are more inclined to seek out a counselor and educational advice. Implications are, however, that organizational time frames mitigate against either group receiving significant advising. The majority of students self-advise and enter the college without orientation to college procedures, expectations, and so forth. (12) Unsuccessful experiences in college do not dampen students' enthusiasm for continuing, but they do raise questions in students' minds about the role of the institution in assessment and advisement procedures. (13) There are nonexistent or, at best, weak networks within colleges to encourage the formation of student support groups; support groups tend to be individuals outside the college. (14) Students have unrealistic expectations about their abilities to accommodate work and school commitments. (15) Diverse student populations bring wide variances of abilities to classrooms; instructors who attempt to provide instruction for all may feel compelled to make literacy demands at the lowest cognitive levels to accommodate the greatest numbers.

Major Recommendations

(1) Organizational links between programs and courses (within programs) should be instituted; full- and part-time instructors should be informed of prerequisites to the course they teach and should be required to provide instructional links to those courses receiving their own students; furthermore, general-function courses that are required of all degree-seeking students, as well as skill development courses, should be required to demonstrate that they do indeed contribute to the knowledge and skill base that students need to continue. (2) Students should not be required to negotiate material for which they nor the instructor can assign value and utility; there should be systematic efforts to link content and skills learned to purpose--i.e., there should be less emphasis upon usage and more upon use. (3) Reading and writing should be required across the curriculum, increased use of reading and writing of a purposeful nature--not as disjointed activities that serve as means to ends. (4) Programmatically, institutions should look to mechanisms for creating stronger student support groups within program majors and classes. (5) Assessment for basic skill development should not be voluntary; any student enrolling for any course that requires reading, writing, or figuring should be assessed for skill level; necessary skill development should be effected prior to enrollment in any courses requiring it. Furthermore, the assessment should be tied to known institutional demands on students following particular programs of study. These assessments, if not completed during the more voluntary procedures of registration, should be completed during the first days of class meetings. Late registration should accommodate changes in schedules based upon assessment results. (6) Institutions should fund developmental programs and allow students adequate time (less threatening environments) and non-traditional evaluative mea-

sures to achieve acceptable skill levels. (7) Students should be involved in active advising--whether that advising be student-initiated and then followed by counselor-initiated support or by major department representatives whose responsibilities to distinct groups of students is administered early in the student's career. (8) Improved advising for minorities and women who tend to cluster themselves in particular vocational programs should be effected to increase the likelihood that they will consider the more non-traditional choices. (9) Students should not be allowed to draw course schedules that require unrealistic commitments to college; work and family commitments must be considered in light of literacy demands, and colleges should restrict attempted hours to reasonable limits.

A Summary of the Chapters of the Report

For purposes of presentation, this report is divided into two major sections. The first section provides a distillation of the general assumptions, methods, and findings of the research. The chapters of the second section provide the reader with the data and analyses on which the first section is based. The reader is urged to read both sections of the report as they complement each other. Each includes information necessary for understanding the other.

The first section contains an overview and three chapters. An overview is provided to present the problem of studying adult literacy in the community college, along with discussion of the concepts we used in the study, and a statement of the research questions from which we were working.

Chapter I of the first part contains a description and discussion of our methodological assumptions and procedures. Chapter II is a summary of our findings and interpretations. It includes four sections on: "Literacy Development," "Student Careers," "The Organization of Instruction," "Student Strategies," and "Student Expectations." Chapter III contains a summary of the implications we have drawn from the research, along with recommendations for policy-making.

The second section of the report begins with a brief overview of the chapters and a discussion of some of the limitations of the studies. Chapter I, "Selection of the Loci of Study," provides some descriptive statistics of the college and explains the reasoning behind the selection of the various research areas (discussions of which follow in the next chapters). Chapter II, "Student Services Subsystem: Counseling Component," is an in-depth description and analysis of the student services program. Chapter III, "Attrition, Probation, and Literacy," deals with some of the problems of studying "attrition," and presents the findings of a small study of students on scholastic probation. Chapter IV, "Developmental Programs, Developmental Reading, and Some Arguments About the Teaching of Reading," offers a brief overview of developmental courses, a description of the developmental reading program at one of the colleges studied, and some general interpretations and hypotheses about the assumptions underlying the frameworks of developmental reading programs and about the social aspects of literacy. Chapter V, "Assessment and Teaching of Math Skills," is an examination of the nature of the curriculum and pedagogy of developmental and introductory math courses. Chapter VI, "Assessment and Analysis of Writing Skills, Freshman English, and Technical Writing," describes and analyses the procedures for writing skill assessment, for the teaching of writing, Freshman English, and Technical Writing with particular emphases on pedagogical issues and intra-program coherence. Chapter VII, "Literacy and Occupation: A Study of Literacy As a Job Skill," examines some of the linkages between the labor market and community college training programs through a study of the Office Occupations Program and speculates on the possible implications for literacy development. Chapter VIII, "Purposes and Motivations in the Use of Text: A Case From the Child Care Program," explores some of the complex reasoning involved in determining how written language is actually used in the classroom. Chpater IX, "The Accounting Program," provides both a description of classroom practices, and an analysis of the linkages between two-year vocational programs and four-year programs and employment practices. Chapter X, "Learning Resource Centers" provides a description of the resources provided by the colleges as support services for literacy development. Appendix A provides a description of the computer program for determining the reading levels of text materials used by this staff in text analysis.

Overview

Introduction to the Report

There are two major sections to this report. The first summarizes the general substance and import of the research, laying out a conceptual framework for literacy development in the community college and relating this framework to community college organization as it now exists. In drawing out the implications of our work, we will also examine various alternative organizational and instructional structures and offer recommendations for change.

The first section of the report describes the methodology, then draws upon the evidence and analyses in the chapters of the second part, but going beyond them in integrating particularistic observations and interpretations into a series of propositions that suggest directions for development of a systematic framework. Primary responsibility for this first section goes to Suanne Roueche, Nora Comstock and Jan Nespor with contributions and comments by the Principal Investigator, John Roueche, and Research Associates Rene Medina, Pat Taylor, and Tom Logan.

The second section of the report consists of chapters of individual programs and courses written by the researchers responsible for the primary observation and interviewing in these areas. (In the case where this was not possible -- a researcher left the staff, the original researcher was asked to review and approve the final write-up.)

Each of the chapters differs slightly in focus -- in large part because of the nature of the areas being studied. The names of the researcher(s) responsible for writing the chapters are provided with each individual study (the names in parentheses are of other researchers who worked in these areas but who had only secondary input into the writing). The decision to place these chapters after the general theoretical discussion and conclusions was reached with difficulty. We wish to stress here that the two sections of the report should not be taken as independent or autonomous. The theoretical discussion cannot be fully appreciated without a detailed understanding of the everyday situation and processes of the school which can be derived only from a close reading of the chapters in Part II. At the same time, the significance of what we report in Part II can only be fully appreciated if the reader first grasps our general conceptual framework. Chronologically, the Part II chapters were written first; and most of the concepts we later elaborate in the first part of the report derive from these data. In writing the report, however, we have decided to present our general analysis and conclusions first to give the reader a guide to the second half of the report and to enable us to present our argument in a coherent and forceful manner, rather than leaving major points embedded here and there in a long narrative description of areas of the college.

On Conceptualizing and Studying Literacy

There is a common belief that "literacy" is of fundamental importance to a society, that the "level" of literacy in a society is an index of that society's economic and social well-being. In spite of the broad acceptance of this belief, there is very little agreement on just what "literacy" is, very little evidence supporting the claims made for its importance (see Graff, 1979). One would think, perhaps, that the specialized disciplines of psychology or linguistics would have developed some more rigorous, if narrower, definition -- especially considering the popularity of reading as a subject of experimental research. However, the inconsistencies and contradictions among "technical" definitions of literacy are, if anything, even more dismal than the vagueness of the arguments for literacy's social importance. (See Downing, 1973: 32-33, for examples of various definitional tendencies among psychologists, linguists, and governmental agencies.)

There is little point in attempting to reconcile or synthesize the various definitions and conceptualizations of literacy: the differences do not lie in testable propositions or hypotheses, but in assumptions that are not open to question. We can, however, consider the significance of the existence of such a varied constellation of definitions.

As Karl Popper and others argue, the nature of one's theory or hypothesis will determine or predict the type of "facts" that can be observed. But at the same time, it must be realized that theories are in turn shaped by unlabeled, unpostulated "background assumptions" (Gouldner, 1970) concerning specific substantive domains. One of the most powerful determinants of such assumptions is the disciplinary matrix (Kuhn, 1970) in which the researcher has been trained -- the problems with which the researcher approaches a substantive field are defined by disciplinary interests rather than by the nature of the substantive field itself. Consider the study of "reading." Linguists, it seems, tend to concentrate their work on such problems as the relationship of orthographical systems to phonological systems, or on the question of whether spoken dialect differences interfere with reading a "standard prose." Psychologists concern themselves with such things as perceptual learning and information processing channels. Psycholinguists draw from both linguistics and psychology, and usually end up talking about whether or not there is phonological (or phonemic) mediation between the visual pick-up of text and the acquisition of meaning. This is, of course, a burlesque of the research; but the point remains that the value of such studies lies not in what they can tell us about "reading," but in what they can tell us about the more general problems of perception, cognition, and language. The way one studies reading is determined by the questions one asks about these more general problems; and these questions (and the problems themselves) are in large part determined by the interests of the disciplines. In some cases this tendency may push the research to the point where it retains very little relation to the practical issues that originally inspired it. Speaking at a conference of linguists and psychologists on the relationship between spoken and written language, the linguist Morris Halle suggested that while the types of studies being discussed at the conference were valuable contributions in and of themselves, it was necessary to consider

> ...the possibility that learning to read is so powerfully influenced by social and cultural factors...that all other factors -- and I refer here to orthographic systems, visual shapes of letters, proper sequencing of reading materials...might at best have third-order or fifth-order effects and could, therefore, affect the success or failure of any literacy program only in a very marginal fashion (Halle, 1972: 153-154).

The idea that such studies are most directly concerned with general disciplinary problems rather than with problems generated out of a consideration of the reading activity itself is reinforced by a comment made in the discussion on Halle's remarks:

> Brewer added that no one at this kind of conference was prepared to deal with the main causes of reading disability...Only after these social problems have been cleared up would an analysis of the reading process such as was being attempted at this conference, prove useful (pp. 156-157).

We should add that simply shifting one's focus, taking on the problems and background assumptions of another discipline is by no means a satisfactory solution: we will not understand "literacy" any better by simply replacing the assumptions of the psychologist about cognition with the assumptions of social scientists about "social and cultural factors."

We will make the generalization, then, that the inconsistencies in the conceptualizations of "literacy" derive in large part from differences in the background assumptions of the various research disciplines that use literacy as a locus of their research. Its popularity as a subject of research derives largely through its unique position of utilizing both vision (long a favorite topic of perceptual psychologists) and language (thus providing access to almost all areas of cognitive psychology). Also, as reading forms an important part of formal educational curricula, there is a large disciplinary interest in reading from the field of education. And insofar as education itself plays a fundamental role in social processes, the study of literacy has attracted social scientists and historians. Yet there is remarkably little communication between these disciplines. The situation exemplifies what Donald Campbell has called the "ethnocentrism of disciplines" (1969): the clustering of highly similar specialities around substantive problems, leaving gaps between these clusters. The substantive problems located in these interstitial areas are ignored, or smoothed over in tacit assumptions, submerged by the toleration of vague, inclusive concepts surrounded by the penumbra of terms spreading out from neighboring disciplines. In effect, we are arguing that the study of certain fundamental aspects of "literacy" have languished unattended in the interstitial areas between disciplines. It is appropriate here to attempt a sketch of this interstitial area.

We have already mentioned the psychological and linguistic studies of written language as a "system" of communication and information processing. There has, however, been little attention paid to the pragmatics of written language, to the uses of literacy. For the moment, we might consider the following propositions: that literacy is a means of transmitting knowledge and that schools are in some fundamental way concerned with the transmission of knowledge. These propositions may be expanded: knowledge may be transmitted through written language, or the school may try to provide the student with access to knowledge by teaching him how to use written language (reading, writing, and so on). The research conducted on these facets of the transmission of knowledge has been surprisingly sparse. Most of the work done by psychologists, linguists, and psycholinguists has, in the first place, concentrated on the acquisition of the "skills" of written language -- specifically reading; there has been little attention to what people actually do with these skills or how they use them. This neglect of usage ties in with the second limitation on the psychological/linguistic studies of literacy: their laboratory bias, the problem of "ecological validity." The criticism of ecoglgical invalidity can be leveled not only at experiments with tachistoscopes or the filming of eye movements of people reading weirdly distorted text, but also to certain field work methodologies that require people ("subjects") to make unrealistic judgments by asking questions that do not allow for the influences of social context (what the ethnomethodologist Garfinkle calls making people into "situational dupes") -- for example, making people rate written materials on scales of 1 to 10.

Research on reading by cognitive and perceptual psychologists has therefore provided us with valuable insights into aspects of human information processing with written language, but it has necessarily simplified the situation and abstracted the reading activity from its social context. Educational policy makers and researchers came to see a need for complementary studies that would identify in detailed and explicit terms the uses of literacy in everyday social life. Studies have therefore been implemented to determine, for example, the time alloted to reading and writing in the course of various everyday activites. Other studies have looked at the ability of people to perform "everyday" tasks (such as reading instructions, filling out forms, etc.) requiring the use of written language. Finally, there are studies, such as ours, which look at the uses of literacy in institutional settings.

Why use qualitative methods to study literacy in the community college? The qualitative methods of our study arise out of a recognition that the social contexts of language use (whether written or spoken language) are crucial determinants of how individuals use language. There is a limit to how much one can learn about written language use by simply (or not so simply) analyzing the written materials that people purportedly use in the conduct of their schools, jobs, or everyday life. As some of our descriptive chapters should make abundantly clear, close observation of people negotiating social settings reveals that the seemingly straightforward role of written materials in social settings overlays a myriad of possible pathways and strategies individuals can use to negotiate both written language and situational demands. A qualitative research design allows us to examine how organizational and social patterns shape the universe of possible pathways and strategies of written language use, and how individuals in these social settings come to perceive the possible strategies, and how they choose among them.

The choice of the community college as the setting for this research stems from several factors. First, the community college is the fastest growing institution in higher education. Thirty years ago fewer than 10% of all students in higher education were in community colleges; today the figuer is closer to 40%. Second, the community college plays the role in higher education of dealing with students who leave the public school system lacking the literacy and academic skills necessary to gain access to four-year institutions. In many states, and in the state in which the present study was conducted, "compensatory" programs in community colleges are mandated by law. Third, the community college, especially in the vocational program areas, makes specific claims about preparing students with the skills necessary to perform the occupations corresponding to those vocational programs.

Statement of the Research Questions

In the scope of work and task specifications of the Request for Proposal from which this project derived, four distinct research areas were defined for the investigative portion of the project. For purposes of exposition these research areas are presented here in an order different from that in which they appeared in the RFP. The order of presentation has no relation to the relative importance of the research questions.

Research Questions from the RFP

1. What are the implications of the use of multidisciplinary research in studies of this type?
2. What type of counseling information is provided to students, and what is the usefulness of this information to the students?
3. What kinds of administrative tasks do students encounter, and how do these tasks affect the attrition or retention of students?
4. What are the literacy demands of selected courses and administrative tasks, and how do these relate to the literacy skills of the students?

The first three of these questions are dealt with in specific chapters of this report: methodological implications in the chapter on Methodology, counseling issues in the chapter on Student Services Subsystem: Counseling Component, and attrition issues in the chapter on Attrition and Scholastic Probation (these latter two chapters discuss overlapping issues and should be read together).

The problem area at which we directed most of our efforts is that of studying the literacy demands of selected courses and administrative tasks in relation to the literacy skills of the students. However, as "literacy demands" and "literacy skills" were not defined in the RFP, and as there were no criteria given for the selection of "selected courses and administrative tasks," we found it necessary to reconceptualize this research area -- to define the terms and to re-write the general research questions as a series of several more concretely-specified research questions.

The first step we took was to generate the following working definition of "literacy" (the processes through which this definition was written are discussed in the Methodology chapter):

> Literacy is the ability to perform reading, writing, and figuring tasks consonant with the expectations and needs of the individual.
>
> Assumption I: The expectations and needs of the individual are socially (and institutionally) constrained.
>
> Assumption II: Literacy is a means by which individuals perceive new alternatives for action.

By defining literacy in terms of the "needs and expectations" of the individual, and by allowing that these needs and expectations are socially constrained or determined (in the sense of putting limits or pressures on the individual), we are essentially saying that literacy is situationally-specific (the situations of interest to us being community college classrooms, or other organizational contexts of the colleges). What aspects of these situations should we refer to as "literacy demands"? We can begin with the assumption that a major purpose of the community college is to transmit knowledge to its students. The school also awards formal markers (e.g., grades, certificates, degrees) which are taken as symbols of the knowledge that the students are supposed to have acquired. These markers are crucial resources in the students' attempts to acquire jobs or gain access to other educational institutions after they leave the community college. We can further assume that the students' acquisition of knowledge, or of the credentialing markers (whose relation to the knowledge must be considered problematic), is contingent upon their ability to solve communicative and performative problems arising out of the organizational procedures of the college or out of direct classroom experience. We can speak of these problems as "literacy demands" when they require the students to process, produce, or manipulate visibly-conveyed language. "Literacy development," then, refers to the abilities of students to meet the literacy demands of increasingly broader ranges of situations. The "literacy skills" of the students, for our purposes, were therefore defined as the students' abilities to solve the communicative and performative problems that constituted the literacy demands. We were not particularly interested in trying to measure them. Rather, we were interested in trying to describe the strategies or procedures that the students used to meet the literacy demands.

Using the conceptual distinctions outlined above, we restated the "literacy demand" question from the RFP in terms of the following questions:

I. What sorts of literacy demands (communicative and performative problems involving the use of visibly-conveyed language which must be solved by the students if they are to acquire the desired grades) are found in various types of classrooms in the community college?

Since individual classroom situations are but various points in a student's academic career in the institution, we must also ask:

II. What are some factors that influence students' academic careers--the pathways they travel through the various programs and curricula of the college?

Classroom situations are not rigidly defined, immutable contexts--they are created and designed by the instructors and administrators who teach in them and are officially responsible for their conduct. Therefore, we must ask:

III. What are the organizational processes involved in the construction of course curricula and in the design of the literacy demands of individual courses?

IV. How are the literacy demands of the various courses that make up student careers related to each other? (The organizational processes that affect students' career paths are considered in the chapter on Student Services).

Finally, while instructors and administrators have a great amount of control over the formal organization of the classroom situation, the interaction that takes place in the classrooms is always a product of the joint efforts of instructors and students. Therefore, we must ask:

V. What sorts of behaviors and interactions take place in the classroom that influence the strategies that students use in meeting the literacy demands of those classes?

VI. What sets of expectations do students bring with them to the classroom that affect their strategies for dealing with the literacy demands of those classes?

The six questions above are discussed in the chapter Findings and Interpretations. Question I is discussed in a section entitled "Literacy Demands," question II in a section called "Student Careers," questions III and IV in a section called "The Organization of Instruction," and questions V and VI in the section "Student Strategies."

In addition to the research question specifically set out in the contract, the RFP also allowed for the investigation of research areas "deemed appropriate on the basis" of a review of the literature, or "suggested by work in-progress." Several additional research questions were generated on this basis:

VII. What sorts of assumptions or perspectives underlie the teaching of reading, writing and math (the "basic" literacy skills) in the community college?

VIII. What are the linkages between community college programs and similar programs at four-year colleges?

IX. What are the linkages between community college "vocational" programs and the vocations for which these programs are training students?

These questions are discussed in various chapters in Part II. Question VII is discussed in the Reading chapter, especially in the "Discussion" section. Question VIII is discussed in the Accounting chapter; and question IX is discussed in the Child Care, Office Occupations, and Accounting chapters.

REFERENCES

Aron, Helen, "A Community College Reading and Study Skills Program: What Is It, What Does It Do?" JOURNAL OF READING, 1978, 22, 231-235.

Becker, Howard S.; Geer, Blance; Hughes, Everett C.; Strauss, Anselm. BOYS IN WHITE: STUDENT CULTURE IN MEDICAL SCHOOL. Chicago and London: The University of Chicago Press, 1961.

Becker, H. S.; Geer, B.; Hughes, E. C. MAKING THE GRADE: THE ACADEMIC SIDE OF COLLEGE LIFE. New York: John Wiley and Sons, Inc., 1968.

Berg, Ivar. EDUCATION AND JOBS: THE GREAT TRAINING ROBBERY. Boston: Beacon, 1971.

Campbell, D. T., "Ethnocentrism of Disciplines and the Fish-Scale Model of Omniscience," in M. Sherif and L. Sherif (eds.), INTERDISCIPLINARY RELATIONSHIPS IN THE SOCIAL SCIENCES. Chicago: Aldine Publishing, 1969, 328-348.

Downing, John, "Cross-National Comparisons of Reading Achievement," in John Downing, COMPARATIVE READING: CROSS-NATIONAL STUDIES OF BEHAVIOR AND PROCESSES IN READING AND WRITING. New York: The Macmillan Company, 1973, 32-64.

Freire, Paulo, "Are Adult Literacy Programmes Neutral?" in Leon Bataille (ed.), A TURNING POINT FOR LITERACY: ADULT EDUCATION FOR DEVELOPMENT. New York: Pergamon Press, 1976.

Garfinkle, H. STUDIES IN ETHNOMETHODOLOGY. Englewood Cliffs, N.J.: Prentice-Hall, 1967.

Gouldner, A. W. THE COMING CRISES OF WESTERN SOCIOLOGY. New York: Basic Books, 1970.

Graff, Harvey J. THE LITERACY MYTH: LITERACY AND SOCIAL STRUCTURE IN THE NINETEENTH-CENTURY CITY. New York: Academic Press, 1980.

Halle, M., "On a Parallel Between Conventions of Versification and Orthography; and on Literacy Among the Cherokee," in J. Kavanagh and I. Mattingly (eds.), LANGUAGE BY EAR AND BY EYE. Massachusetts: MIT Press, 1972, 149-155.

Kuhn, Thomas. THE STRUCTURE OF SCIENTIFIC REVOLUTIONS. Chicago: The University of Chicago Press, 1970 Ed.

London, Howard B. THE CULTURE OF A COMMUNITY COLLEGE. New York: Praeger, 1978.

Mills, C. W. THE SOCIOLOGICAL IMAGINATION. New York: Oxford U. P., 1959.

Northcutt, Norvell. ADULT FUNCTIONAL COMPETENCY: A SUMMARY. University of Texas at Austin, March, 1975.

Platt, J. REALITIES OF SOCIAL RESEARCH: AN EMPIRICAL STUDY OF BRITISH SOCIOLOGISTS. Toronto: Sussex University Press, 1976.

Roth, J. A., "Hired Hand Research," THE AMERICAN SOCIOLOGIST, 1966 (Aug.), 190-196.

Wallar, W. THE SOCIOLOGY OF TEACHING. New York: Russell and Russell, 1961 (1932).

CHAPTER I
METHODOLOGY

The RFP: Scope of Work and Methodology

NIE envisioned these two funded projects as providing additional understanding about the adaptations of minority and other students to the community college as well as the college to them. The project was to be multidisciplinary in nature: a focus on the multidisciplinary study of the development of literacy--the "basic" or remedial literacy, the academic, vocational, counseling subsystems. The research was to be ethnographic in nature, involving administrators, faculty, counselors, and students from the college selected to participate. In addition, the funded projects were allowed to make site selections that would "contribute to in-depth understanding" of the project's focus; they were, therefore, not confined to the study of one college.

The RFP generally described the scope of work and the methodology:

> Interrelations among the developmental studies, academic, vocational, and counseling systems are to be studied with regard to the nature and manner of their conceptual, procedural, and policy linkages. For instance, are all students evaluated with regard to their entering literacy skills? Do the evaluation tests contain content representing the academic and vocational courses? Are there informal learning arrangements (e.g., coffee talk at the student union; clubs; parties) that produce as much or more learning as the lecturer? What learning strategies are explicitly or implicitly used by minority/bilingual/bicultural students? Do these contrast with other students? How is learning assessed? What factors affect minority and other student achievement? (RFP: 5)
>
> Each Project is to use methodologies such as local surveys, case studies, participant observation, structured interviews and other techniques to provide a rich descriptive analysis of the settings and processes students and faculty engage in that may help or hinder the student's adaptation to the community college. Task analysis techniques, involving an understanding of human information processing, are to be used to study the reading, writing and mathematics demands imposed in functioning within the community college (e.g., registration, applying for financial assistance, etc.) (Ibid.).

Research Sites

Research sites were two community colleges located in Texas (a major and a minor research site). Unless otherwise indicated, the reported research was conducted primarily at the major research site. The sites were chosen as they represented institutions involved with developmental education, with staff development and program improvement efforts, and heterogeneous student populations that were appropriate for the study.

Gaining Entry

The chief administrators of the two sites agreed to the conduct of the literacy research on their campuses. It then became the responsibility of the project staff to gain entry to the various campuses, courses, meetings, and so forth. We decided to approach the chief executives, division and department chairs on the campuses personally and their faculty by letter. The letter made a brief explanation about the purpose of the project, what activities were proposed, how much time (and effort) it would require of participating faculty, and our desire for volunteers. We followed up indications of interest with personal visits and phone calls. These strategies allowed us to begin our work with relative ease, and the same strategies were useful for involving faculty throughout the project.

Problem Focus

NIE's RFP highlighted the community college movement as one product of the serious national effort to achieve educational equity. Community colleges have the potential of being "an effective mechanism for upward mobility and increased minority participation in professional fields" (RFP, p. 3). In outlining the problem focus of the research, the author of the RFP noted that:

> The work of Roueche and Snow, and similar large scale survey studies of community colleges, while providing provocative hypotheses about what factors are correlated with reduced attrition and enhanced learning, are unable to produce the type of information about the dynamics of student-organizational interactions needed to make significant increases in our understanding of community colleges as *contexts for student development*. This type of understanding calls for *process studies of an intense nature*. Studies are needed that are highly *descriptive of who students are, what they are like, how they interact with other students, teachers, other institutional representatives, and their own families*. We need to understand the dynamics of the *community college as a context for literacy development*. This understanding calls for the *combined insights of discipline specialists* such as cognitive scientists, anthropologists, sociologists, developmental studies specialists, and counselors (italics ours) (RFP: 4)

The authors of the RFP envisioned this research taking place in three stages (one for each fiscal year the project was to be funded). In the first year there was to be a review of the literature and a development of a "procedural methodology" to guide the research for the remainder of the project. During the second year the "intense" process studies were to be undertaken, while the third year was reserved for any additional fieldwork that the researchers felt was needed and for the writing of the final report. The next section describes how this scheme was translated into practice during the course of the research.

Advisory Board

Recognizing that a national advisory committee would be expensive and perhaps less efficient than one which was locally-based, we obtained agreement from several local experts to serve as our advisory staff. The members of this board agreed to participate prior to the submission of the proposal and represented discipline areas important to this research: linguistics, anthropology, sociology, educational administration, Mexican-American studies, community college education.

While individual schedules prevented a large group meeting before January of the first year, that first meeting served as an opportunity to provide a progress report as well as to discuss suggested particulars of the research area and design. Due to schedule conflicts, problems inherent in multidisciplinary work, and size of the group, we decided to use and inform advisory board members in a non-group format. Thus, further communication with advisory board members was targeted to individual meetings, correspondence about project progress, acknowledgements of NIE deadlines and our submitted documents, and researcher queries to individual members about issues in their area of expertise.

Overview of the Stages of the Research

Government research agencies usually break down the stages of a multi-year project in terms of fiscal years--their basic unit of temporal organization. Thus, in the RFP, and in the proposal submitted on the basic of that RFP, the Project on Literacy Development was structured on a yearly basis: the "scope of work" referred to tasks to be performed during each of the three years of the project--yearly reports were to be submitted to the NIE. Of course, the October-September fiscal year has a quite arbitrary relationship to the research situation in the field. To take our own case as an example, the fieldwork had to be accommodated to the structure of the academic time units of the institutions studied: semesters running from August to December, January to May, and June to August. More importantly, to jump ahead for a moment, the field decisions made at the beginning of each semester functioned as strict constraints on what we could do during the remainder of the semester. The foci of research were planned out at least a semester in advance. Entry into classrooms in the middle of a semester would have been disruptive to the class, denied us (what we came to feel was) important information about the first days of the class, made it difficult or impossible for us to understand the shared meanings that developed between instructors and students over the course of the semester, and made it more difficult for us to develop rapport with teachers and students (e.g., it emphasized our "outsider" status). Thus, the actual sequence of the "stages" of the research did not follow that outlined in the RFP (i.e., Year I devoted to a literature review and development of a "procedural methodology"; Year II devoted to fieldwork; and Year III devoted to finishing up loose ends of the fieldwork and writing the final report). Instead, there were at least five distinct stages in the research: Stage I (October, 1978, to August, 1979) consisted of a review of the literature and the production of a tentative research design; Stage II (August, 1979, to January, 1980) consisted of exploratory fieldwork (interview, classroom observations) which was used to revise the research design. Stage III (January, 1980, to August, 1980) consisted of fieldwork (classroom observations, interviews, etc.) in selected courses whose self-proclaimed purposes were to teach the "basic" literacy skills (i.e., reading and writing), and with the writing of a descriptive summary of our findings (the "Year II report"); Stage IV (August, 1980, to May, 1981) consisted of fieldwork in programs (i.e., sets of courses arranged in a sequence or at least closely interrelated, which a student had to take in order to acquire the knowledge needed to perform in some occupation, or to gain access to other educational institutions); Stage V (May, 1981, to November, 1981) was given over solely to the writing of the final report.

STAGE I

The Literature Review Process

Roughly the first ten months of the project were devoted to the literature review. The initial listing of possible topics (listed below) was included in the proposal; starred items were added during the course of the first year and were included as researched topics in the interim report (Year I):

bilingual education and literacy development
developmental studies and literacy development
organizational climate, communications, behavior and dynamics
crosscultural studies from sociology, psychology, anthropology, economics, social and comparative history, education, gerontology, and other behavioral sciences as appropriate
traditional sources of information on characteristics of minorities, especially adults, at varying ages, especially related to culture and cognition
studies dealing with so-called disadvantaged target groups in various institutional settings
cognitive development from the overlapping perspectives of education, anthropology, sociology, psychology, neurosciences, aesthetics and sociobiology
alienation from the perspective of divergent disciplines
theory building
theory of method
learning theory
neurolinguistic programming in counseling settings
*context
*scale
*problem-solving
*comprehension
*cognitive style
*affect and motivation
*culture and class overlaps

Titles were collected from a number of sources. One researcher enrolled in the Current Awareness Service of the General Libraries at the University. This system provided access to ERIC and Psychological Abstracts data bases. Approximately once a month, a printout was produced from a specially-selected set of descriptors, listing articles and reports of potential interest. Additional titles came from the NIE RFP and staff members provided suggestions from their own reading of publications; and finally, of course, every article consulted contained in its bibliography other possible points of departure for fruitful research.

For every article read, notes were recorded on index cards; the cards were then filed under the researcher's name. The card was to contain the essential bibliographic information, brief description of important information, the researcher's opinion about the appropriateness or usefulness to our immediate research, and the researcher's name. An appropriate label, corresponding to the area appearing on the topical research list, was included as a "subject heading" in order to simplify later indexing at the report-writing point. At the end of each week, in preparation for a Monday morning meeting, the researchers would submit a report--an overall synthesis and evaluation--summarizing the week's reading and drawing conclusions from their own investigations.

The final literature review appeared in two stages: (1) an interim report that briefly reviewed the major research areas and was accompanied by a lengthy research design that clearly reflected the approach included in the original proposal and (2) a final, more lengthy version that compartmentalized (topically) the researched areas that accompanied a more brief version of the research plan. In each instance, the bibliographic reference cards and the synthesizing reports served the functions that would be typical of any literature compilation effort. Ultimately, however, the literature review proved to be of limited utility in the conduct of the research during the second and third years. The problems at issue seem to have enough general relevance to merit a brief digression.

Timeliness of the Literature Review

The literature review came too early in the plan to have been the powerful force that the contract suggested. Our research time was limited; the "possibles" within the research time lines were relatively clear. As a result, the research design--given the wishes of the funding agency, as laid out in the contract--could have been laid out in broad brush strokes early on and then the focus of the literature review could have been for refining the specifics. As it was, the language of the contract was that "based on the literature review...(we were to) produce a conceptual framework and prcedural methodology...." It is our retrospective judgment that the cart was before the horse and that the staff should have had more opportunities (or at any rate assessed more discretionary power) to devise a plan that could find strength in a refined and targeted literature search.

STAGE II

The Initial Fieldwork

The first venture into the field took place in August of 1979. At this time the staff was divided into "teams" reflecting the major research foci derived from the review of the literature (these were "Organizational Dynamics," "Student Interviewing," "Staff/Faculty Interviewing," Classroom

Dynamics," "Special Programs," "Community Dynamics," and a continuation of the literature review). All of the staff members served on more than one of these teams, and each was the titular "chairperson" of at least one team. The team objectives were three-fold: (1) to develop and design interviewing and observational strategies suitable for the specific research site, (2) to field test these strategies, (3) to develop contacts at the site college and to gain access to settings for future research.

No formal arrangements had been made for teams to share information. However, it was assumed that the initial arrangement of overlapping team-membership would allow for an efficient, if informal, flow of information.

This stage of the research, and the following two stages involving fieldwork, can be distinguished by their use of somewhat different "units of analysis." In the stage from August, 1979, to January, 1980, the entire school, as an agent in the community, was the unit of analysis. Interviews were conducted with community leaders, University-based content specialists (within programs receiving community college transfers), and employers/potential employers of community college students. The community leaders were selected on the bases of (1) public service (e.g., ethnic interest/action organization leaders), (2) policy-making position (e.g., mayor, legislators), and (3) social/religious influences (e.g., church leaders). These interviews were conducted in hopes of determining the expectations the "powers that be" have for the institution, the efforts they make to effect change in the institution, the assessments they make of the quality of the community college's service. In addition, we hoped to formulate some images of the literacy picture of the present and future--what society demands now of its citizens, what must they be able to do to survive, what changes must take place to ensure that they will do so in the future. University-based content specialists were requested to speak to these same issues with additional questions concerning interfacing efforts (precipitated from either side) between the University and the community college. And, finally, potential and present employers of community college students were encouraged to speak to their input to the instructional process (content, strategies) and their assessment of the community college effort to prepare/train their employees.

At this time, it was also important to begin to circulate on campuses (research sites), talking to faculty and students and getting some impressions to bring back to the team meetings during which the specifics of interviewing questions and classroom observational schedules were being fleshed out. The content of the courses that were observed was not particularly important (as long as there was good "ethnic mix").

However, there was no special emphasis on following classroom observations through a semester. From August to December, three observers were in academic classes, and one observer was in developmental reading classes on full-time bases. Two observers set in on a minimum number of other developmental classes and one transfer/academic course. Informal conversations were held with faculty members (in observed classes as well as those yet uninvolved with the project) and students (in lounges, halls, and the library). Observations of the LRC (Learning Resources Centers) began with efforts to document student use of the library, library holdings available to students, and so forth. Counseling and advising procedures (counselor and faculty responsibilities) were observed, and counseling administrators were interviewed. There were attempts to compare what was happening in the orientation, preregistration, and registration procedures against what counselors and faculty perceived should have been/was happening there.

The Unit of Analysis

To take the entire school as the unit of analysis assumes that the relevant actors are groups whose basis of organization lies outside the school: ethnic groups (and the students, insofar as they represented the groups), city politicians, business groups, and so on. During the first phase, there were, accordingly, efforts to interview city council members, state representatives, "minority leaders," employers and the like. The assumption follows from this definition of the relevant actors that crucial decision-making takes place at a very high level: the board of trustees, steering committees (there were two memos from researchers noting the composition of these groups and the backgrounds of their members). Finally, taking the entire school as the unit of analysis limits the perception of possible alternatives to the issue of whether or not the community college is a viable institution for literacy development. The perceived alternative is to create new types of institutions to fill this need if the community college is found "wanting." In this regard, there were questions to minority and community "leaders" as to whether they thought the community college was effectively "promoting" literacy, whether they thought other institutions might not be able to do a better job, and so on. Much attention was also given at this time to arguments such as those of Jerome Karabel (1972) that community colleges were the low track of higher education, concerned mainly with giving the illusion of equal educational opportunity while actually serving the interests of the business sector by tracking working class students into vocational programs and to Burton Clark's "cooling out" thesis--that is, to theories which made statements about the general functions of community colleges as homogeneous entities.

During Stage III in which individual classes were used as the units of analysis, many of the assumptions of the first phase had been discarded. The questioning of community "leaders" and local officials had resulted mainly in vague statements generally approving of both community colleges and literacy. More importantly, we could find no indication that these people had any great interest in, or influence with, the day-to-day activities of the college. The university-based faculty saw little, if any, interface with the community college in any ongoing relationship. In other words, we could not sustain the definition of these actors as relevant to our concerns. And after examining the minutes of cabinet meetings and attending meetings of the board of trustees, we concluded that important day-to-day working decisions must be made at lower levels in the institution. Finally, our early observations and interviews, along with our examination of the few statistics we were able to acquire from the school by that time, suggested that there was much greater internal diversity in terms of students, class, ethnicity and so on, than we had suspected. The assumption that the school could be treated as a homogeneous entity and ascribed a single function or role in literacy development, or education generally, seemed more and more difficult to maintain.

Instead, it seemed more likely that different parts of the college served different populations, provided different services, resulted in different student careers. At this point, the project shifted to a second widely-used definition of the unit of analysis in the study of education: the classroom.

Classroom research assumes that the teacher and the students are relevant participants and that effective decisions are made in the classroom. Naturally, the aspects of the situation that come to light through the use of this unit of analysis are the instructor's style of presentation, attitude toward the students, his or her background and training. Student interviews become focused on students' attitudes toward the instructor, attitudes toward the class, the students' background and so on. Classroom observation focuses on instructor/student interaction. Since the instructor, and to a lesser extent the students, are considered the relevant decision-makers, the range of alternatives for change are limited mainly to changing the instructors' and students' attitudes and behavior toward each other (sort of a "human relations" model).

STAGE III

Redefining the Fieldwork

As indicated in Stage II, individual courses or classrooms became the units of analysis. It was decided that the best way to get a sample of the student population and at the same time to get some idea of the common experiences of the students was to observe "required" classes (general courses required for a degree plan, e.g., Freshman English), to continue our observations in the developmental classes, and to observe introductory classes in certain vocational areas.

Using the classroom as a unit of analysis entailed a change in interviewing and observing strategies: instructors were to be interviewed only in conjunction with the observation of the courses they were teaching, student interviews were to be conducted with students in these classes. All of the interviews were to be structured around what went on in the classrooms being observed (rather than, as before, focused on student backgrounds, attitudes, and opinions). This meant that the interviews would no longer be completely comparable across the entire student population--only within the individual courses studied.

Each team had a team chair, responsible for making initial contacts with department chairs for permissions, overseeing the scheduling of researchers into classes selected by the team for observations, keeping team notebooks current, reporting team activities to the project director, and attending any committee meetings that were held at the colleges (department meetings of program--primarily full-time--chairs and instructors). Each team member was responsible for keeping classroom observational field notes, typing his/her notes and filing them in the "team" notebook, interviewing the instructor, distributing the student surveys, and interviewing the students, submitting the tapes for transcription, editing the copies and filing them in notebooks. Bimonthly synthesizing reports were prepared by each team member and filed. Team members were encouraged to read other members' synthesizing reports and make comments as to problem areas and/or questions on a "comment sheet" on the inside cover of the notebook. Notations of items needing further research (or answers) were to be made, dated, initialed, and referenced in the data (the notebooks were numbered consecutively as the team members added to their sections). This procedure promoted group interactions and kept overlap, reinvention of the wheel, and duplication of effort to a minimum.

During the summer phase of work, a brief faculty survey was circulated by the project staff. While the response was not significant (N=20), the staff got some indication that we were narrowing, significantly, the focus and number of questions that comprised observations and interviews (as regarded curriculum and assignments). The survey included questions about the frequency and types of writing and reading tasks (assignments, classroom activities), instructional/professional strategies for dealing with students' reading/writing/math difficulties. Observations of orientation, pre-registration, and registration processes continued during both the May and August sessions. The literature review continued informally as RA's went to "sources" for support and explanations, as reflected in bibliographies that accompanied the synthesizing reports.

Revision of Assumptions

When reviewing our research from Stage III we found that some issues arose which made it necessary to revise our assumptions. For example, we found that in many cases the individual instructors were not the effective decision-makers. In many cases, we found that they were required to use textbooks selected by other instructors or administrators, to follow syllabi that they had no hand in constructing, administering tests that they had not designed. (An extreme consequence of this policy is one case where an instructor commented that he wasn't sure what some of the answers were supposed to be on a test constructed by his administrators and wondered how he could expect his students to know them.) In some cases, we found instructors teaching courses designed on the basis of theories which they did not know or understand. We also found that most courses did not stand alone but were part of some sequence of courses designed to lead to a degree. The students' attitudes and behaviors could not be reduced to what went on within individual classrooms, but instead were products of classroom interaction and students' experiences in other courses in a degree plan (this applied even to those students who were not seeking a credential). Finally, it seemed to us in retrospect that we could not state adequately the alternatives for change simply in terms of student and instructor attitudes and behaviors. We could see that there were additional factors which might very likely be of greater importance: the relative influence of instructors in selecting materials and designing curricula, the place of the individual course in the student's entire academic career, etc. We sought to incorporate some of these considerations when once again we redefined the unit of analysis.

The Final Unit of Analysis

During Stage IV we defined the unit of analysis as the program or major of the student. The relevant participants here were the group of instructors who taught the courses that comprised the major--the issues of hiring and instructor socialization. More specifically, we were interested in how power and influence over the design of the courses and their organization in the program were distributed among the different groups of instructors (e.g., part-time vs. full-time instructors). We shifted our focus to those students whose academic careers were organized around these programs--that is, students who were majoring in these programs. We became interested in how these courses fit together for the students. This led to more attention in classroom observation to the types of knowledge taught in the courses and how the knowledge from one course related to the knowledge taught in other courses in the major. The range of possibilities for change that go with this unit of analysis included revisions in the curriculum, redistribution of authority among the instructors, reshaping the relations between different classes and so on.

STAGE IV

The Final Phase of Fieldwork

Programs of study (student majors) were used as the units of analysis. In this stage programs were selected on the basis of content (our focus on "required" or introductory courses had led to an overemphasis on "skill" courses, e.g., reading, writing, math, etc. We wanted to shift our focus to "content" courses in vocational and transfer curricula), and on the basis of background characteristics of students: ethnicity, entrance status, the percentage of students in a major on financial aid, and so on (information derived from printouts from the college administration). Course schedules were reviewed and a set of courses (usually from about four to seven) were selected for study from each major which were thought to represent the range of course types in the major. Another criterion for course selection was employment status of the instructor: part-time or full-time. Department heads were approached for permission to observe classes in their programs (in some cases, we requested interviews with these department heads as a means of access). Individual instructors in these programs were then approached for permission to observe in their classes. As in the second phase, student and faculty interviews were focused on what went on in the classroom, but there were added dimensions of interest in the student's academic career as he pursued a major; there was some discussion of outside work experiences in the major field, some talk of what the students expected the practical relevance of the major to be, and whether they considered the Associate of Arts credential necessary or useful to gain their ends in the world outside school. Faculty interviews also included more questions on decision-making in textbook selection and curriculum structuring in the program.

Data collection and storage continued unchanged although there was a brief--and aborted--attempt to put major "findings" onto notecards that would be kept in a central filing location and that would, in the final analysis stages, make for easier accessing of information. The staff found the notebook procedure more energy effective and looked toward the formalization of the coding procedure. Each researcher had developed a "coding" procedure of her own that allowed categorization/cataloguing of issues/answers in the margins of the observation and interview data pages; the categories were general ones, based upon the questions that team meetings in the discussion of data had generated (the final versions of which had been included in the Year II Report). This attempt to "notecard" major findings was the staff's first serious indication that development of a coding manual was going to be a major undertaking--just to reach a consensus about the wording of the major issues would take a considerable amount of time and effort.

STAGE V

Process for Data Analysis and Writing the Final Report

In May of 1981 a list of detailed issues and problems, derived from researchers' data, was finalized and standardized, and from this list a final "coding" system was developed (heretofore, the codes were stylized by research area and team). Each staff members was responsible for coding the materials he had produced (or which had been produced by ex-staff members studying the same areas of the college). When all of the material in a given notebook or file had been coded, notecards were made (showing codes, page numbers, special comments, etc.) to allow for easy data retrieval, and to allow the researchers to reorganize the data along the lines of the issues on the coding list. The data in the notebooks (or notebook sections) had remained in chronological order and the pages had been numbered consecutively. The codes and page numbers, when transferred on the cards, did retain some of the "progression" of the recorded events and ideas, even when the cards were "shuffled" to combine all the "like" Roman numerals, or major categories. As the drafts were being prepared, the card file--with its major categories, specific category delineations, and page number references--simplified access to the data.

The "coding" and notecarding of the field notes produced (1) a potentially more accessible system of data, (2) a close re-reading of the entire corpus of fieldnotes, and (3) a re-thinking of the issues on the coding list, and the possible interrelations of those issues. What a coding system does not produce, however, is a model for writing a report. While the list of "issues" points to the various aspects of literacy in the community college that could be dealt with in the report, it says nothing about how findings, analyses, and so on, should be presented. Moreover, each unit of analysis used in studying the college, and to some extent each area of the college, present certain problems that merit extensive analysis in their own right. Therefore, the decision was made to break the report into two major divisions: a first part, in which general issues used for coding would form the basis for a general examination of literacy in the community colleges; and a second part, complementary to the first, in which the researcher(s) who had worked in particular areas of the college would write "chapters" of those areas, focusing on issues or problems particular, or at least most strikingly manifested, in those areas. This has the drawback that the writing style, and to some extent the organization, of the sections varies with the writers and the areas studied. However, the overwhelming virtue of this approach is that it provides both a systematic overview and analysis of the research as a whole. At the same time, the chapter approach allows the researchers with first-hand knowledge of the field to concentrate in much greater detail, providing much more contextualizing for the reader

Summary: Methodological Correlates of Changes in Units of Analysis

The evolution from Stage II to Stage IV entailed a shift in field techniques: interviews became progressively unstructured and classroom observations became more so, or rather targeted to specific issues. The tight, elaborate interview schedules of the second stage were discarded in Stage 3 as researchers discovered that the interviews were too long, too much data was being generated and that while it may have been interesting and even valuable sometime down the road, it was not giving the teams the more targeted information that they needed for the most efficient use of limited project time. The shift in the research focus to the classroom as the unit of analysis also, then, refocused the content of the questions. The primary concerns had become specific "literacy" behaviors--reading, writing, figuring, not the more [illegible] background information gathered earlier. By Stage Four the [illegible] to be asked in interview were left to the discretion of the [illegible] as he followed the classroom behaviors and activities (observations [illegible] in the interviews. At the same time, the idea of one set, extended interview on tape with instructors and students was replaced with a more spontaneous approach in which instructors were often "interviewed" briefly and informally on specific topics or events in addition to the more formal taped interviews. Several instructors and counselors were interviewed several times on tape over periods of up to a year. Student interviews became similarly spontaneous: often untaped conversations with groups of students in the lounge before or after classes were held. Students were re-interviewed on occasion, and some students were interviewed in semesters after those in which they had been in observed classes. (We were interested to see if they thought those classes had been of some benefit to them.) Classroom observations became progressively longer with richer and more detailed descriptions of classroom interaction and specific instructional activities--a product of experience in the classroom and the increasingly well-defined focus during Year II activities and "topical interest" questions. There was a movement from focusing on general interaction to what students were asked to do using written language, what did they do, what happened, and so forth.

This accounting should suggest some of the ways in which methodological decisions entail important assumptions about the social setting being studied. Several points remain to be clarified. First, the methodological discussion may seem to indicate that there is some sort of built-in testing mechanism in these units of analysis, that their shortcomings are apparent, or that they become obvious to the researchers in the course of the fieldwork. This is not necessarily the case. Many of the revisions in our thinking were the result of serendipitous discovery. For example, a researcher working in a small program with only four instructors was invited to a staff meeting by one of the instructors whose class he was observing. (It had not occurred to him to ask about staff meetings or request that he be allowed to attend one.) At this meeting, some of the complaints of part-time instructors about the shape of the curriculum led him to suspect that this might be a significant factor in other programs where it would not be apparent because of the greater number of instructors involved and the absence of staff meetings (not all programs had such meetings). This took place during the first phase of the research, but it was not until months later, when other researchers had had similar insights, that the curriculum process was focused on.

A second unwarranted interpretation of this sketch might be that the unit of analysis and methodological procedures used in the fourth stage of the research were in some way the "right" methods, the best possible methods. We do not make this claim. We believe there were rational reasons for adopting the methods and unit of analysis of the third phase, but we recognize the shortcomings--for example, after analyzing programs designed to equip students for specific occupations or careers, many researchers felt the need to move outside the college itself and examine more specific employment practices and working-place conditions into which these students might go (only begun in Year II activities). There was not adequate time. It may be that many of the foci of the first phase of the research could have been profitably pursued after doing the work of the third phase. At any rate, we wish merely to admit that there are areas of importance which we have not been able to touch upon given the constraints of this project.

This rather schematic account of the development of the project neglects several important questions. The first, to be taken up in the following section, is that of "who" the researchers were, and how their identities affected the research.

Characteristics of the Researchers

Presentation of Self in the Research Sites: A Negotiated Process*

Many of the instructors at the college had been trained at the local university, while all of the students knew of the university. Some aspired to attend it; others had been rejected by it; all had preconceived notions about it. While it would be nice to think the researchers were able to establish a degree of rapport that overcame their association with the university, realistically we must assume that the university background had some, though highly variable, effect on the interactions of researchers and the administrators, instructors, and students at the college. Of course, outsider status has great advantages--it allows one to ask questions and go places not allowed to ordinary participants in the situation. But to have the status of a specific outsider, as the member of a group about whom the participants in the situation are likely to have strong or set opinions, must inevitably affect the nature of the "selfs" that these participants present to the researchers. Occasionally, students and faculty made such preconceived notions explicit, and we could take them into account in interpreting what they told us, but for the most part it was difficult to say just who the instructor or student thought he was dealing with--an agent of the College of Education, a graduate student from the university, or simply an inquisitive researcher. As the section describing how we gained access to areas of the school makes clear, the "identity" of the researcher was negotiated, usually over the entire period of the fieldwork, with the outcome of the negotiations never entirely clear.

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*A Human Subject Agreement policy obligated the researchers to identify themselves and the project to all prospective participants.

Researcher Backgrounds

The researchers represented a variety of disciplines (in terms of training) and backgrounds (in terms of research experience). The disciplinary backgrounds ranged from Engineering and Art, to Foreign Language Instruction, Educational Administration (community college education), Sociology, Psychology, and Anthropology. Experimental backgrounds cut across this training: some of the Sociology and Anthropology researchers had no experience in research and no knowledge or particular interest in educational research, while the researchers with backgrounds in Engineering and Art had experience in educational research (and in some cases were in fact pursuing degrees in education-related fields).

Nature of the Fieldwork and Researcher Backgrounds and Experience

In any event, the nature of the fieldwork tapped the expertise of every researcher and provided many learning experiences. The following is a sketch of the nature of the fieldwork and some of the consequences for researchers: (1) The attempt to use qualitative techniques to study a "skill" such as writing or reading was unusual (excepting the efforts of researchers who in effect simply redefine the problem to make it amenable to established research techniques and interests)--up to this time research on literacy had been dominated by psychologists and linguists. (2) Few of the researchers, even those with research experience, had experience in taking intense, detailed field notes of interaction. Such models as were available from the literature were used, but for the most part the researchers learned from each other--as a result, most felt that the quality of their observation notes improved greatly over time. (3) Experience in interviewing also varied--and in some instances led us down paths we later abandoned: the detailed, rigid interview schedules (which some of the researchers had experience using, though not constructing), ultimately had to be abandoned in favor of short, spontaneous conversations between researchers and students (and the somewhat more elaborate interviews with instructors) focused on specific issues arising out of classroom interaction. (4) The closeness of the research setting (both physical and cultural--and in some instances occupational closeness: some of the researchers ended up teaching for the college) made it difficult at times for the researchers to distance themselves from what was going on. To borrow a term from cognitive psychology, classroom interaction, especially in secondary education follows a script with which the researchers are intimately familiar from their own life experiences. This problem recedes as the researchers study younger and younger children in the lower grades. (A kindergarten does not look quite as familiar to an academic as a college classroom). A common complaint from all researchers was that classroom environments quickly became predictable--it was only by going beneath this predictability, first to discover how the participants viewed the class and then to determine, beyond the question of predictability, what the consequences of the class were for the students with regard to what they learned and how they performed, and to determine why the instructors taught the classes in the way they did that the material became meaningful. (5) Finally, all of the researchers excepting the project director and associate director, were at one time or another employed only part time on the project--many were simultaneously pursuing graduate studies, or holding other part-time jobs. Thus by necessity, most of the researchers were "in-and-out" of the research sites, rather than "living" at the site. This is continued in a later discussion.

In sum, the fieldwork was a sort of "socialization" and learning process. Preconceptions were modified if not completely abandoned, methods were learned and refined, and the negotiated definition of the researcher's role slowly emerged. It is this last matter--the development of the researcher's role--that is taken up in the following section.

The Development of the Researchers' Roles

Getting Access

As noted in the discussion of the "stages" of the research, two main approaches were made to gain access to classroom: a mailing of letters allowing instructors to volunteer to participate, and personal contacts (telephoning, etc.) between researchers and instructors. Most agreed to allow observations and interviews. The matter, of course, is much more complicated: "access" means not merely permission to physically sit in on class; it also carries connotations about openness and availability. In this sense, access varied along several lines: (1) knowledge of the nature of the project, (2) time constraints of instructors, (3) time constraints of students, (4) political situation within the schools.

(1) By knowledge of the nature of the project, we refer to the knowledge that instructors had about the focus of the project--on literacy, rather than their knowledge of the researchers or the institutional base of the project. Indeed, many instructors willingly accepted us into their classrooms and agreed to interviews before we could explain to them our specific focus on literacy--the fact that we were "researchers" was enough to satisfy them. In a few cases, however, instructors expressed a great deal of scepticism about the ways we were going about studying literacy. In no case did they actually refuse to allow researchers into their classrooms, but their cooperation was contingent upon the researchers talking with them extensively, assuaging their fears or uncertainties. One problem with this contingency was that for a good part of the fieldwork (perhaps until Stage IV), we had no simple answer as to how our fieldwork was to be translated into a discussion of literacy--this is far from saying that the fieldwork done prior to this was not useful or sufficient to discuss questions of literacy--simply that no firm decisions had been made with regard to format or the framework of presentation.

(2) Access was a problem in the case of part-time instructors, many of whom worked at other jobs full-time and taught classes at night. Some held other part-time jobs or had other responsibilities besides teaching during the day. Interviews often had to take place hurriedly before and after class, with the researchers competing--very uncomfortably--with students for the instructor's time. In one instance, scheduling was so tight that an instructor would agree to be interviewed only in class, during a test or a film or when students were working alone or in groups.

(3) As with the instructors, students usually had jobs or other commitments outside school which put great constraints on their time. Many simply were not on campus except for the time that they were in class. Often one could do no better than simply chat with these students just before and after class. Many times researchers were refused interviews by students on the grounds that they "just didn't have the time." Possibly in some of the instances this was simply an excuse, an avoidance. Most often, it seemed the excuses were very legitimate reasons.

(4) The political situation within the schools (school politics) had some effect on the willingness of some instructors to be straightforward with researchers. In one instance, in which we were observing two instructors teaching the same course on different campuses--and the instructors disagreed dramatically on how to teach the course--one of the instructors refused to allow a taped interview and would not talk openly with us unless we divulged what we thought of the other instructor. The result of that interaction was that we have a great deal of information on the ideas of one instructor and next to none on her/his counterpart. In other instances, subordinates were hesitant to talk with us for fear the information would leak up to their administrators (and, in fact, on occasion administrators would attempt to get information from us about a subordinate).

Gaining access to individuals' perceptions about the issues this study addressed was complicated by the exigencies of time constraints and individual's interest in information gathered in the field which we considered inappropriate to discuss with anyone outside the research staff. In effect, our interview data was dependent on the willingness of individuals to be open and upon the circumstances of their availability for interviews.

The Role of the Researcher--Presentation of Self

The problems of maintaining a role that allowed one to carry out research while minimally disturbing or distorting the behaviors of teachers and students varied from setting to setting, from researcher to researcher. In some situations (e.g., the accounting program) researchers seemed to have little trouble fading into the background--the students were approximately the same age, many aspiring to university careers. The researcher was merely one note-taker in a class of note-takers. In other situations, such as the developmental classes, the researchers stood out strikingly--the classes put a great deal of emphasis on participation in exercises in which the researchers could not play a part (e.g., finding the verb in a sentence, or the "main thought" in a story).

In some cases, the researchers developed a sort of dual role. Several of us had the experience of having had many informal discussions with students and instructors, developing what we felt was a good deal of trust and rapport--then turned on a tape recorder and watched it melt away. Students and instructors would refuse to talk about certain subjects or else change what they had previously told us informally. In some instances, the speech styles of the students would change dramatically--as indeed one would expect. The tape recorder, or the use of research questions that clearly would not come up in casual conversation (e.g., "how do you prepare for a test?") automatically transformed the situation into a formal mode, regardless of the informal relationship the researcher had built up with the individual.

In summary, the "researcher" seems a well-established role in the everyday knowledge of the participants in these types of settings. However, the researchers must decide how and if to adapt to the requirements of various situations. The ambiguities and tensions of the researcher role, therefore, make it all the more important to look at the research strategies used in the field, the subject to which we now turn.

Strategies of Observation

Living at the Site

As noted previously, researchers were, for the most part, "in-and-out" of the site. This was partially a product of their (usually) part-time employment status as researchers. However, it is also the case that in many classes, many of the loci of research, had only "off-and-on" existences. In many cases, both students and instructors were at the site only for their classes. Probably little was lost by the in-and-out activities of the researchers in these situations. There are two exceptions to this: some of the vocational programs (e.g., Child Care and Office Occupations) scheduled their classes in large blocks of time. Students would often share two or three classes in a row--and this seemed to favor much more outside class interaction and association among the students. One could often find small groups of students from such majors congregated in the lounge talking (quite often about things other than class work). In such situations "hanging around" in the lounge, or in the classrooms before and after class gave us much valuable information--often we were able to talk, or at least listen to students who were unwilling or unable to give us more formal interviews. The second exception to the "in-and-out" nature of the research was the Night Campus, observed almost exclusively by one researcher (Carol Rubio). Since the campus only functioned for a few hours each night, and was a relatively small environment, Rubio was able to profitably spend a large amount of time "hanging around" talking to students and instructors.

Time-Depth

The minimum amount of time spent working with a class--an instructor and group of students--was one semester. Exceptions to this were a few instances where we decided after a few class sessions that the student composition of the class wasn't what we wanted--e.g., drop-in students from the university, or where the focus of the class turned out to be something other than what we expected. Semester-length involvement usually entailed observing 20 to 50 classes (depending on how many researchers were working in the area), interviews (sometimes more than one) with the instructor, and formal interviews with as many of the students as would agree to be interviewed (plus the occasionally very important informal interactions noted above).

Cross-Checking

A completely satisfactory method of cross-checking observation and interview data was never developed. However, by working in teams we did try to insure that more than one observer would work in courses in a program, that for large (in terms of enrollment) courses such as Freshman English more than one researcher observed the same course. In smaller programs we tried (but certainly did not always succeed) to have more than one researcher observing the same class, or observing the same instructor teaching different classes. The researchers would write up their impressions and findings independently of one another and then argue over their differences. Another sense of "cross-checking"--the integration and comparison of information gathered from observations, interviews and other methods, is dealt with in a separate section below.

Types of Information Gathered in Notes

No recording devices were used in the classrooms; all notes were handwritten as the class progressed, although in some instances in which the researchers felt obliged to engage in classroom activities such as group discussion and so on, note-taking was discontinued. The researchers would then write up in their notes immediately after the class session ended. The notes were then typed as soon as possible after the observer left the campus. As noted earlier, the skill of the researchers in taking notes, and their assumptions about what was important and relevant, changed over the course of the fieldwork. Early on, for example, a great deal of attention was given to determining in great detail how much time was spent on a particular task or activity in class--we decided later that this wasn't important to our interests. Also, there was an overemphasis in the notes on looking at and noting what the instructors were doing--as they are usually the most visible and active participants in the class-rather than, as we later came to think was just as important, looking at the muted interactions between students while the instructors were lecturing or whatever, and the "interactions" between the students and their materials (e.g., notetaking, interpreting tests). At the beginning of the fieldwork there was also an overemphasis on the purely formal characteristics of classroom interaction. For example, one researcher carefully noted the exact time at which a student asked a question, the sex and ethnicity of the student, and then counted up how many students of what sex and ethnicity asked questions during the class--without ever noting the content of the questions or the quality of the response by the instructor. Later, we paid much less attention to exactly when things happened and much more attention to the substance of what happened.

The content of the notes also varied with the nature of the course and the style of the instruction. In some classes, for example, a tremendous amount of class time would be spent in the students working through exercises in textbooks or on handouts provided by the instructor; in other classes, textbooks were rarely used and instructors spent most of their time writing on the board. In some classes students were required to solve math problems, in others to write papers conforming to explicit guidelines set by the instructors, and so on and so forth. Thus, in some cases our fieldnotes had to include large selections of written language that the students were made to use or exposed to, or made to produce. But the nature of this written language, and the forms it took, and therefore the manner of our note-taking, varied from course to course, class to class. The conceptual focus of the observations was always the knowledge, the lesson, that the instructors were trying to transmit. Since this knowledge was almost always transmitted through multiple channels (with the channels varying from class to class) our notes represented synthetic accounts, focusing on how, in as much detail as possible, the lesson was presented (how the instructor integrated the different channels--speech, blackboard writing, audio-visual, etc.); how students attended to the lesson (e.g., note-taking, questioning, etc.); and what strategies the students used to perform the tasks set for them by the instructors. Obviously, observations, even in those situations in which classroom interaction led to students speaking about their decision-making strategies in dealing with classroom problems, could not provide us with adequate information on all of the issues of interest. We, therefore, placed a great deal of emphasis on talking with the students outside of class--interviewing them on tape if possible.

Strategies of Interviewing

Our body of interview data is extremely heterogeneous in quality. Whenever possible we tried to set up taped interviews with the students (always after having observed in the classroom for a number of weeks). As we noted before, this met with varied success because many of the students had time constraints and simply saw no good reason to give their time for an interview. We tried to compensate in these cases by talking with students informally before and after class, in the lounge or in the halls. Much useful information came of this, but obviously it could not have the depth or detail of the taped interviews. In the schedule of exhaustive scope--exhausting to both student and researcher--we focused on the students' perceptions of the course, the instructor, the specific tasks students faced in the class, the students' interpretation of the usefulness of the class for reaching their goals, and so on.

Almost all instructors observed were interviewed on tape (and there were usually informal discussions as well). These interviews focused on the instructors' explanation of the purpose of the course, the way specific textbooks, materials, and activities related to that purpose, the amount of influence or control the instructor had over the content of the course, the instructors' perceptions of the students, and so on. Both instructors and students were asked basic questions (or were given survey forms) to determine basic demographical information and educational/employment background.

Integration of Data by Individual Researchers

Our goal was to have, first, several weeks of detailed observations of classroom activities and analyses of written materials used in the class. We would then interview the instructors on matters arising out of that particular classroom situation (and, for general-function courses, about the relation of that course to other courses in the college)--the interviews were used to seek answers for questions that had arisen out of our observations (and, of course, the observations themselves were grounded in a set of basic problems or issues which also had some bearing on the interview questions). Informal discussions with the instructors throughout the remainder of the semester were used to clear up any matters of uncertainty arising out of further classroom observations.

Our interviews with the students would also begin after several weeks of observations and would stretch over the remainder of the semester (and sometimes into the following semesters). Again, we would try to balance the information from student interviews with that of instructor interviews with our observations of the classroom: how did the instructor explain the purpose of the class and its relation to other courses or an occupation--how did the students view the purpose of the course, etc.--what in fact do we observe taking place in the course and the other courses to which it is presumably related? (The one real lacuna is that we have no first-hand information about the actual usefulness of "vocational" knowledge in the workplace). The fulcrum, what we relied upon in cases of contradictions, was the observational data. Hence, it was vital that we observe the classes from the first day of the semester and observe consistently throughout the semester to understand the shared meanings that formed between instructors and students.

Limitations of the Study

There were several critical limitations to this study. Because they impacted the design and the outcomes of the research, it is imperative that we address them here.

A major limitation was that of instrumentation; the methodology that we employed is, at the moment, relatively devoid of any standardized instrumentation or guidelines for implementing a coherent plan by which researchers can go into field situations and observe specific behaviors or incidences. In essence, researchers could only be charged with investigating broad issues in particular settings. There are no objective methods of gathering data, not even semi-objective methods from which could be developed a structured protocol. Therefore, we were limited by the ability of any given researcher to stand back and observe a situation accurately. Clearly, objective observation was difficult to accomplish as the researchers were personally, as well as professionally, committed to this investigation.

The nature of the multidisciplinary team that was assembled to carry out the research provided a diversity of experiential backgrounds and training. That diversity, while a strength of this research (in that a rich variety of perspectives offered more opportunities to achieve greater balance in the total picture) contributed to the problems of applying consistent perspectives to collected data Given the scope of work, the time allowed--in even this generous contract--was inadequate time for researchers to arrive at a level of consensus and a high degree of compatibility that would have resulted in an even more tightly-woven synthesis.

The study was further limited by this time frame. Given our charge from NIE, we realized that we could not look at one or two areas and conduct in-depth studies; rather, we had to investigate broadly across the college. Thus, the amount of time that could be allotted to the study of particular services, programs, courses of study, and support areas had to be carefully balanced against their relative merits in light of the research focus. Taking the broad view required that we sacrifice some in-depth perspectives that obviously had merits of their own. The broad view further contributed to the diversity in reporting styles and perspectives that are evident in the final report.

Another limitation was the absence of an extensive research base, either theoretical or empirical, to which we could relate many of our findings. It was almost impossible to relate our findings to a framework for understanding given that various literatures are both fragmented and specialized. Rarely have they made contact with each other in useful or meaningful ways; they are, in fact, almost disparate. Not only did we then have the problem of creating a framework for our own results, we had to create a conceptual framework for the literatures with which we were concerned.

Another basic limitation was that while ours was a very extensive investigation, it was in some respects conducted in a vacuum; we often had to treat daily circumstances as if nothing else was going on--or as if all other things were equal; and, of course, they were not! There were resource limitations and personnel limitations on both researchers and research sites that represented a massive interplay of variables. Definitely, there was no way we could note, much less cope with, the massive interplay of these variables to the extent that all possible combinations affected our study. Thus, we were forced to treat many situations as though they represented linear relationships when in actuality they were multivariate. So while there were ongoing and daily interactions in process, we had to treat observations in relative isolation. (And whenever any single situation is identified for study, there is the likelihood that some variables will be systematically ignored or overlooked--e.g., the relationships between resources and technical activities. Available resources, in fact, may be one of the greatest determinants of literacy development in any institution. However, this investigation did not examine resource availability and allocation. Therefore, it was relatively easy for this limitation to limit access to variables that could have dramatically influenced findings and analyses.)

Furthermore, as we had chosen to look at those situations that created problems in terms of literacy development--barriers, obstacles, difficult situations, and so forth, this limitation targeted our research to problematic and critical issues with the result that some of the more positive institutional responses may not have received the prominence that they deserved. To have attempted to achieve a finer balance between the positive and negative issues would have been a further diluting of our resources.

And, finally, we were working in a real-world setting. The degree of access we had to personnel and clients of the colleges was a critical variable (see methodological discussion); we experienced some access limitations, not from a lack of commitment but from the realities in which administrators, faculty, students, and researchers were living--e.g., researchers did not live at the site; students and many faculty were part-time.

In addition, the reality of change in a real-world setting impacted our study; the institution continued to move forward, courses and programs underwent reconfigurations and new development, and support services were modified. Individual program (course, area) descriptions and analyses would be completed and researchers would move on to others. Thus, it was that changes which had occurred in the interim periods created problems for researchers when they presented their findings and analyses to research participants within the institutions; e.g., there were charges of failure to include situations that would affect the analyses when, in truth, the situations had been greatly modified after the period of the actual research. The resolutions of these problems were impossible; it was only psossible to acknowledge this major limitation.

SOME REFLECTIONS ON MULTIDISCIPLINARY RESEARCH

Interdisciplinary Group Research

The organization of academic social sciences works to maintain disciplinary boundaries, penalizing those who transgress them, and constraining the production of knowledge about the interstices (Campbell, 1969). To remedy this, Campbell presents what he calls "the fish-scale model of omniscience": "...collective comprehensiveness through overlapping patterns of unique narrowness"-each narrow speciality representing a unique "fish-scale" (p. 328). This, of course, was a plea for the reorganization of academic research, an argument for a new type of scholarship. There is, however, another manner of addressing the problem of "disciplinary ethnocentrism": interdisciplinary group research--that is, bringing together a group of researchers from disciplines having conflicting background assumptions. One might call this a "balance of power" scheme: each time the follower of one perspective makes an assertion, it is challenged by someone following a different perspective. The diversity of perspectives increases the chances of avoiding the "trained incapacities" (in Veblen's phrase) that afflict "experts" in specialized fields. There are, of course, serious problems with such group research: there is a constant battle between researchers and administrators on the questions of what sort of work should be done and how the data produced should be used. There are conflicts between researchers on the conduct of the research--they may try to build up autonomous areas of "expertise" where their judgments cannot be questioned; or, at the opposite extreme, researchers representing a single discipline might overwhelm researchers from other disciplines, in effect co-opting their skills. However, provided there is at least a minimum of frictions, the effect of group research is to produce a reappraisal of the basic concepts and assumptions underlying the research.

Even into the second year of this research, there was perhaps a maximum of friction among staff members, and the concept of "literacy" was at the center of almost total reappraisal of the basic assumptions of the research. The details of the arguments, while highly entertain-ing at the time, have since lost their flavor. But to put it briefly, the disagreements among the researchers tended to center around the use and meaning of the concept of "literacy." There were those who argued that "literacy" was essentially a "cognitive process" which should be studied with the quasi-experimental methods of Cole and Scribner. Other argued that such methods were inappropriate for the study of adults in institutes of higher education. They argued that the crucial problems to be examined were the social, political, and cultural forces which shaped the educational attainments of sub-groups in the society. Reading, then, becomes a social and political act, the concept of "literacy" coming to resemble that of Paolo Freire:

> When the separation between thought and language, and reality no longer exists, then being able to read a text requires a "reading" of the social context from which it stems. It is not enough to know mechanically the meaning of "Even saw the vineyard." It is necessary to know what position Eve occupies in the social context, who works in the vineyard, and who profits from this work (Freire, 1976:199).

This sort of perspective attracted a good many enthusiasts on the staff; it did offer an easy retreat from confronting the problem of literacy, per se--things could be redefined in such a way as to turn the research into a broad analysis of schooling, focusing on "cooling out," "gatekeeping," "social structure," and the like, especially as they relate to "culturally different students."

Meanwhile, the educationists on the staff were looking for some way of defining literacy in terms of some type of test--either a standardized reading test, or perhaps Norvell Northcutt's Adult Performance Level definition of literacy:

> Literacy does not consist of just one skill, or even a set of skills. Literacy is two-dimensional, rather than unidimensional. Literacy is best defined as the application of a set of skills (dimension one) to a set of general knowledge areas (dimension two) which result from the cultural requirements that are imposed on members of a culture...However we define literacy, we expect more literate adults to be more successful (Northcutt, 1975:44-45).

What the Adult Performance Level study actually did, in effect, was to focus on some activities that they had decided were fundamental to living in (or being "successful" in) modern society--things such as writing a check, reading instructions on labels, and so on. They then attempted to see how many people could actually perform these tasks. This definition was in due course attacked from other perspectives on the staff as being too artificial, not taking into account alternative means of gaining information, not explaining in any useful way what "cultural requirements" were, or how they differed for different segments of the society, or how they were "imposed."

For a time, the staff attempted to avoid bringing these disagreements out into the open. Instead, it was suggested that we go out into the field and ask people what they thought literacy was (in other words, uncover the "emic" definition of literacy). However, while most people had opinions about the importance of literacy, few could give any coherent definition of it (the question was too artificial, too far removed from everyday life). Finally, the issue of defining literacy was brought to a head, and the entire staff spent a morning working out a definition that would be acceptable to everyone on the staff. This was the definition:

> Literacy is the ability to perform reading, writing and figuring tasks...

(This was accepted fairly quickly, everyone realizing that "tasks" was ambiguous enough to allow a good deal of flexibility in practice.)

> consonant with the expectations and needs of the individual.

(This was a bow to the common argument that one can only speak of literacy as it relates to the level of skill required for "effective functioning" in the individual's social milieu. See the 1962 UNESCO definition.)

> Assumption 1: The expectations and needs of the individual may be socially (institutionally) constrained.

(This is a concession to those who wanted some means of arguing that social class of institutional factors might "artificially" lower or limit the "expectations and needs" of the members of certain segments of society.)

> Assumption 2: Literacy is a means by which individuals perceive new alternatives for action.

(This brings in the notion that literacy activities are reflexive means of acquiring information about the external world--not simply mathematical correlates of "success," or the ability to read and write a short passage about one's self--rather, a form of social perception.) Thus, we settled on our definition of literacy.

Multidisciplinary Teams

The multidisciplinary nature of a project staff tends to exacerbate the typical problems that can go wrong with even those projects that are composed of individuals who, for all practical purposes, share common interests, training, and goals. The multidisciplinary team brings training and personal expectations to the project that are dramatically different, and the outcome is all too often a precondition toward disharmony.

> ...it introduced another element into the total research situation. A few people found it valuable and stimulating, and felt that their intellectual development had been permanently influenced by it or that they would want all their future research to be interdisciplinary. This was relatively uncommon: in 10 of the 15 projects (studied) disciplinary

> differences were a source of conflict or disfunction of some kind. In one case a sociologist and a statistician both said that they often simply could not understand what the other was talking about! More often the problem was not one of literal understanding but of divergent approaches and intellectual styles (Platt, 1976:40).
>
> ...the effects of different patterns of intellectual training and socialization are reinforced by personal needs, and conflicts and disagreements are likely to follow; sometimes these conflicts and disagreements may be resolved, and even bear fruit, but in other cases they can be pointlessly disruptive or lead to an unplanned fragmentation of the project (Ibid: 42).

In the case of directing such a team, it appears that there is a fine line between establishment of a democracy and an autocracy. The tendency is for directors to lean more toward the democratic mode of interfacing with the staff; and often the staff senses a lack of guidance or direction in the project. To be less democratic, however, the director must deal with feelings that the researchers are not being allowed their freedom to express their points of view and have a real hand in guiding the research. If the means of the research and the focal points are so clearly laid out in the beginning that the researchers' comments are not needed or regarded, then trouble can brew. However, if the discussion becomes too democratic, few, if any, decisions can be made at all. Unfortunately, the time line is rarely discovered. More often, project members complain when conditions reflect either side of that mystical "perfection," and the comments of one side or the other cannot provide an accurate picture of reality. This rather lengthy commentary is appropriate:

> There are two recurring themes in the data on large projects which are not overtly related to the division of labour, but I think must be interpreted as arising from it. These themes are the common, and connected, complaints of research assistants that the research had no hypotheses, and that they (therefore) did not know what they were doing. Sometimes, of course, it was simply true that the research had no hypotheses, but at other times the director would have said that it did have some; whichever was really the case, the interesting question is why it whould have been felt as a cause for complaint. My interpretation is as follows. Hypotheses are most commonly the responsibility of the director, at least initially. In a completely democratic or egalitarian project, hypotheses would be worked out jointly by the whole team, and everyone would understand them. In a completely authoritarian project, at least if the research method is such that little initiative or creative understanding is required from the juniors hypotheses can be handed down from on high, or tasks can be imposed without detailed specification of the hypotheses to which they relate. Most actual projects fall somewhere between these two types. They are neither completely democratic nor completely authoritarian, and their methods often require sympathetic

> understanding and commitment if they are to be put into practice properly; thus the research assistants have a strong practical need to grasp exactly what the project is meant to be about. (And they, in common with directors and lone researchers, are liable to find lack of structure and uncertainty disturbing.) But the means for them to do so may not be available. Directors usually want, with at least one part of their minds, not to impose a completely rigid framework on their juniors; they have some respect for the norm of intellectual autonomy, and moreover hope that the research will profit from the constructive initiatives of their juniors. Thus they do not give detailed directives or, where they do give detailed directives, these are at the level of theory rather than of the operational detail with which research assistants have to cope from day to day. Thus the juniors may still not feel that they are really being guided (Ibid: 93-94).

Another reality of the uneasy progression in such a project as this one is clearly reflected in the research styles of the associates themselves--specifically, what tolerances individuals have for ambiguity and/or clear relationships. The obvious problems associated with the diversity represented here took months to blend into a cohesive effort.

While the myriad of problems associated with the multidisciplinary team approach are manageable, they can be negatively memorable. As a study of such projects noted, too often this memory is the norm:

> ...the experience of authority is subjective and perceptions vary... the bare existence of hierarchy has sociological consequences...to some extent these occur irrespective of the norms and intentions of those most immediately involved... Where director and juniors are in perfect intellectual harmony, these problems are insignificant and easily soluble by discussion. Perfect intellectual harmony, however, is not simple to achieve. Several directors remarked that, if they were involved in a team project again, they would take more care to recruit only collaborators who were really compatible and thought the same way as they did. Given, however, the practical difficulties of finding workers with suitable basic qualifications, there might be little chance of using such refined criteria of compatibility, and such remarks commonly came up in the context of explaining why they did not want to undertake team research again (Ibid: 88-89).

But the experience can have more positive outcomes. Over the months of the research, this team has built a very special kind of teamship. The foundation for that team approach, however, has been built of disagreements, stand-offs, some decisions to compromise, and problem resolutions. However, it is now a team that could most likely pick up and begin another project and move ahead; pity is that that rarely happens.

NIE Funding Cycles and Associated Problems for the Texas Project

While such contingencies as available funds, politically-expedient timing, selection procedures for identifying contract recipients are basic to funding agencies' timing for the granting of awards, the timing of the funding decisions of this sizable award affected staffing and research activities rather dramatically. From a study of research projects associated with academic settings:

> The normal academic project was scheduled to take 2 or 3 years. Whatever the intrinsic needs of the research, it was almost always felt necessary to make the starting and finishing points fit in with the academic year, since if they did not it might be impossible to recruit suitable research workers in the first place, and it would create difficulties either for them or for the project (if they left early) at the end (Ibid: 26).

The contract was awarded September 29, 1978, and work was to commence at once. While the director of the project had been identified and was on the faculty at the University, the schedule of ongoing employment could not be held in abeyance until a funding decision had been reached. Thus, in the case of the director, teaching in another department, a teaching contract had been signed earlier and her teaching schedule had to continue. It was, then, that once funding had been announced, her workload was increased substantially as she attempted to complete the fall semester, give responsible time to both teaching and research hiring duties. In addition, staffing the project quickly was dependent upon locating more or less independent types--graduate students, or persons actively seeking full-time employment--and available for employment at this particular time in the academic year.

In addition, as regarded the research activities, ten and twelve-month deadlines for product deliverables to NIE were then scheduled at intervals during the following years when production of report documents conflicted with important academic events at research sites--registration, beginning of classes, and other research-identified crucial events. Too often the decisions could cost the project valuable time and effort.

General Discussion

There are three analytically distinct but practically intertwined problems in a multidisciplinary study such as this. First, as in all forms of social research, multidisciplinary research must account for the selection of the units of analysis, and the methods of gathering, processing, and presenting data: the technical-instrumental problems of method. The research must assert its legitimacy in terms of some normative framework of scientific inquiry.

Secondly, unlike other styles of research, multidisciplinary work entails the use of multiple, usually conflicting, frameworks of inquiry. These different frameworks are usually personified by different researchers. The problem of integrating these different research frameworks is both a theoretical/methodological and an organizational/administrative problem. Research decisions are sometimes more a matter of research staff politics than of an "objective" consideration and weighing of different logical arguments. Such staff politics are all the more likely to be found in cases such as the present one in which the research design is fluid and "emergent."

Finally, a problem arises from the nature of the organization being studied. There is an assumption underlying much social research that the people and institutions one studies are in some sense "passive": not necessarily cooperative or easy to deal with, but passive in that they have little or no control over the information that they yield to the researchers, as if one were dealing with a natural phenomenon. The methodological problem is seen as merely a technical matter of selecting the proper research technique and applying it correctly. There is another school of research, in which we would situate ourselves, that recognizes that, especially in modern industrial societies and in bureaucratic organizations, the research may be looked upon as a resource by the people being studied (that is, someone to be manipulated into producing "findings" favorable to the institution or to the bureaucrat with whom the researcher deals); or as an enemy (by people who have something to hide, or who simply feel that the researcher is biased against them). Organizations and bureaucracies very carefully monitor and regulate the type and amount of information they release about themselves. This matter of institutional control over access was exacerbated by the multiple research approach--there was the danger of different sections of the institution co-opting researchers to present their side of the case. Again, there were factional disputes within the institutions, and researchers ran the risk of unwittingly associating themselves with one faction, thereby shutting off their access to other factions. The general point then, is that it was necessary to carefully specify how access to situations and personnel was controlled by the institution, and how this was related to the internal organization of the institution.

We have identified methods, the integration of frameworks, and the interaction of researchers with the people and institutions being studied as the three major methodological problems we encountered: the first is common to all research, the second peculiar to multidisciplinary research, and the third an aspect of studying powerful, information-producing institutions. It is not necessary to point out that these three problems interact with each other: different frameworks may entail different methods, or at the least, a different emphasis on the methods used; frameworks also structure the units of analysis selected and the general focus of the research--implying that important aspects of the institution may be ignored. Methods also carry with them certain assumptions and limitations independent of the frameworks in which they are used. This is due in part to the decoupling of theory and method that attended the rise of professionalism in social science.

The "abstract empiricism" that Mills (1959) chastised has been sometimes mistakenly identified with the survey-and-statistics approach that dominated Columbia in the 1950's. It would be nearer the mark to say that the quantitative school was simply one manifestation of abstract empiricism--the professionally dominant variety at the time Mills was writing. In fact, however, autonomous methodology has survived and flourished in a number of incarnations; theory has retreated, now occupying perhaps a short chapter or two prefacing a detailed description of findings. One finds "ethnography" and other "methods" applied indiscriminately in the service of theories of almost all description. Theory is under-developed, or so loosely linked to methodology that the reader has no feel for why certain methods might or might not be appropriate to the subject under study. There seems to be a tacit assumption that, while few would claim anymore that social scientists themselves are "value free," their methods are value free. In contrast, the argument here will be that methods carry with them theoretical baggage, certain theoretical tendencies that must be held in check.

No clear and uncontroversial criteria have ever been established for determining the appropriateness of a research method for the study of a specific substantive area. True, there are close ties in some instances between method, technology, and subject matter, but the tendency has been for methodology to become autonomous to a greater and greater extent. By "autonomous" we mean that methodological procedures (i) can be used in the service of almost any theoretical framwork--even for contradictory frameworks; (ii) the validity of methodological procedures is determined independently of any consideration of their appropriateness to substantive areas or research problems; (iii) there is formal instruction in methods, independent of theoretical or methodological considerations; (iv) there are professional specialists in the subject of methodology. Some of these features probably derive from aspects of university organization--the separation of disciplines, the association of disciplines (or schools within disciplines) with certain methodological procedures, the inculcation of these procedures as a means of reproduction in academic groups. Again, some of the listed features probably are related to the general "professionalization" of social science.

Autonomous methodology makes possible the use of "specialty" researchers--students who have received some formal instruction in the use of certain research methodologies who are hired on research projects to perform, as technicians, research employing those methodologies:

> The product the hired hand turns out is not in any sense his. He does not design it, make any of the decisions about producing it or about the conditions under which it will be produced, or what will be done with it after it is produced (Roth, 1966: 192).

In actuality, methods and research design are almost always negotiated to some extent, even in specialty research. This area of negotiation derives from the fact that very often, especially in multidisciplinary research, the people responsible for getting and administering the funds are expert only in some crucial areas of the research--most likely in those target areas of the research--and choose to hire people with such expertise, experience, and training to provide expertise in the research specifics that are not in their training or experience.

If a funding agency sends out a Request for Proposal specifying that seven or eight different specialities and approaches be incorporated into the research proposal, it is exceedingly unlikely that anyone outside of a research corporation (e.g., RAND, HUMRRO) or research institute is going to be able to pull together seven or eight specialists to work on writing a proposal. In the present case, the proposal was written by people with extensive expertise in the workings of the proposed setting and research foci of the study--community colleges, literacy development, developmental education, research in the community college area, and tangential experience in qualitative research. (We should note here that there seems to have been some tacit recognition on the part of the writers of the RFP of the impossibility of developing a workable and genuinely multidisciplinary approach in the proposal stage: the scope of work called, instead, for the research framework and "procedural methodology" to be developed by the end of the first year, during which time a review of the literature was also to be conducted.)

Multidisciplinary research, then, is likely to be fluid and emergent--to contain areas of uncertainty in which the writers of the proposal and the administrators of the project (who are likely to be the same people) and the specialty researchers who are to carry out the bulk of the research must negotiate over the correct way in which the research is to be carried out. Multidisciplinary qualitative research is in effect a dialectical process. On the one hand, techniques such as participant observation require almost autonomous fieldworkers--individuals who can work off of their own hunches and insights and follow-up unanticipated events as they develop in the field. Most importantly, the fieldworkers should be subject to no authority except that of reason and argument. On the other hand, however, there is a real hierarchy in the organization of the research. There must be a common focus to the research; if it is to be a useful guide to theory and practice, it can accommodate only a certain limited amount of contradiction and inconsistency. If fieldworkers are allowed too much autonomy, then the research becomes fragmented, and there is a potential for conflict among researchers over the common resources of the project.

CHAPTER II

FINDINGS AND INTERPRETATIONS

LITERACY DEMANDS IN COMMUNITY COLLEGE CLASSROOMS: A DESCRIPTIVE FRAMEWORK

"Literacy demands" have been defined as the communicative or performative problems that students must "solve" in order to achieve a desired goal in a given situation. (In this case, the crucial situation is the community college classroom). In our research we tried to determine the literacy demands of a large number of courses in a wide range of college programs (due to time and space limitations only a fraction of these are treated in the descriptive chapters that make up the latter part of this report). In the course of this research we developed certain analytical categories that allow us to discuss the literacy demands of different types of courses (rather than, say, simply listing the literacy demands of all the courses we examined). We have also tried to elaborate a set of propositions (derived from out analyses of classrooms) with which to characterize the different types of goals that students may be attempting to reach in the classrooms.

When dealing with primary and secondary education, one can reasonably assume the existence of a hierarchial ordering of courses in the institution and the hierarchical ordering of classes for the same course (tracking). In the community college, however, such orderings are much less likely to be found. The different departments and programs of the college possess a high degree of relative autonomy in curriculum design (often resulting in overlaps, redundancies, and disjunctions among courses with similar goals in different programs. In some cases different courses within a single program serve different, sometimes unrelated functions). To describe the programs of the college with the traditional framework of "transfer" vs. "vocational" vs. "developmental" programs (a framework which seems to owe more to funding patterns than to anything else), therefore, glosses over the questions of the relationships of courses from different programs--and of course within the same program--as well as questions of the aims of the students taking these courses and the instructors teaching them.

We decided that by using a framework that located courses in terms of their curricular focus we could deal with the sorts of issues raised above and at the same time avoid a highly detailed and cumbersome conceptual framework. We look at curricular focus in terms of the implicit aims of a given course to teach subject matter on a continuum from general-applicability (e.g., knowledge that will be useful to the students in a very wide range of school and non-school contexts) to specific-applicability (knowledge useful to the students only in a well-defined and highly circumscribed set of contexts). For analytical purposes we have distinguished three locations on this continuum: at the extreme of general-applicability we speak of general-function courses, at the opposite extreme of applicability of specific-function courses, while courses in an intermediate range are referred to as general-specific function courses.

General-function courses are usually administratively located in the "academic-transfer" program areas of the college, but they are intended to serve students in both the transfer and vocational areas. They are usually "required" courses intended to impart to students skills or bodies of knowledge useful in a broad range of school courses (though the connections are rarely made explicit). In the present study the course which most closely approaches this model of general-function courses is the Freshman English course--required in all two-year degree plans offered by the college. While there are less than 100 students majoring in English, there are upwards of 3,000 students enrolled in English courses in a given semester, most of them in the Freshman English course (this represents between 25% and 30% of the total college enrollment). This high enrollment represents on the one hand, the fact that many students enter the college aspiring to a two-year degree (around 32% according to one survey conducted by the college--though about 5% actually go on to receive two-year degrees). And on the other hand, the high enrollment reflects the practice of counselors, who sometimes recommend that students take "required" courses such as Freshman English as soon as possible upon entering the college (to get the requirement out of the way).

The attempt to make Freshman English a requirement for all students in the college reflects certain assumptions about the usefulness of the knowledge it teaches--namely, that writing (the focus of the course) is a necessary ability for the successful negotiation of an academic career at the institution and that the writing skills taught in the course will be useful in the other courses in the college requiring written work. Thus, we speak of this course (and others with similar assumptions--the developmental courses, some of the math courses, though none of these are "required" in the sense that Freshman English is) as having an (implicit) *general-function* in the total college curriculum.

The courses which we refer to as having a *specific-function* are administratively located within programs of study in which students major. Their implicit purpose is to provide the students with skills or knowledge useful for the specific vocation or academic career for which the program is designed to prepare the student. The "Child Care III" course (described below in Chapter VIII) is a good example of this type of course. It is designed specifically for students who are either already working in the Child Care field or who are very near to beginning work in the field. While it is not impossible for students who are not majoring in Child Care (and who have no plans to work in the child care field) to take the course, it does seem highly unlikely that they should ever constitute more than a minute fraction of the enrollment. Thus, we say that courses such as this have *specific-functions* in the total school curriculum--they are designed to serve only those students who are pursuing a specific major.

The courses whose curricular function is intermediate between the general function and the specific function courses--what we have called *general-specific function* courses--are those courses with applicability that extends beyond the boundaries of a specific program or major, but that does not extend to the entire college (and usually not beyond a relatively limited range of majors or programs). For example, some of the introductory accounting courses (discussed in Chapter IX) are required courses for students seeking business-related majors other than accounting; the Business Communications course (discussed in Chapter VII) is required for majors other than Office Occupations, and so on.

While the general/specific distinction is designed to capture the implicit aim of the designers of curricula, we also felt the need for a set of distinctions to catch what we as outsiders saw as attempts to teach different types of knowledge, or knowledge for different purposes, within the same course, or in different courses in the same programs. These categories are "ideal types": a given class may contain elements of different "types of knowledge"--"sensitizing", "recipe", or "reified" (see Chapter VII for the derivation of these types).

(1) Sensitizing knowledge refers to knowledge intended to influence the cognitive "frames" or set of expectations the students employ for interpreting and understanding situations "relevant" to them.

(2) Recipe knowledge refers to knowledge of sets of practices or procedures for performing well-defined tasks relevant to the students school or non-school activities.

(3) Reified knowledge refers to "theoretical" knowledge--the principles and axioms of a formal body of knowledge, generally relevant only to school or academic contexts.

The Freshman English course already referred to provides an example of such an instance where overlaps in the types of knowledge being taught occur--serving to remind the reader that the typologies offered here are meant only as analytical devices. In Freshman English (see Chapter VI of Part II), certain groups of students (those who "contract" for A or B grades) are introduced to certain concepts of discourse theory which are intended to help them understand the purposes and aims of the various forms of writing found in various contexts. This is intended both to help students understand the writing process in a general way (i.e., reified knowledge), and at the same time to sensitize them through awareness of the ways that various media of communication affect their lives.

Students' Goals

Students have many overlapping (sometimes conflicting) goals in the community college classrooms. Many of these (e.g., those relating to the reasons students have for enrolling in the college) are discussed in a later section of this chapter ("Student Careers"). Here we are primarily interested in talking about student goals in a general way as they relate to the literacy demands of the classrooms.

Getting A Grade

Schools are designed not only to transmit knowledge to their students, to train or enlighten them but also to broadcast formal summary statements (e.g., grades) which supposedly represent the knowledge that students have acquired--it is these formal summary statements which are socially valued. In other words, grades are the *sine qua non* for the students. All the knowledge in the world will not do the student much good if he does not have a good grade or some other sort of credential from the organizations which are socially delegated the responsibility for transmitting that knowledge. On the other hand, grades and other credentials are of considerable value even if their possessors lack the knowledge they are supposed to represent. Whatever else they do in a course, therefore, students must try to get good grades, unless their interests in taking the course are purely recreational (which rarely is the case). This situation provides a minimal goal applicable to the definition of "literacy demands": literacy demands refer to problems that students must solve in order to get good grades--that is taken to be the minimum that they must do if their taking the course is to have a useful outcome for them.

Relevance

One should not assume, however, that the only purpose the students have in taking a course is to get a good grade. It is one thing to say that, considered objectively, from the outside, credentials carry more social and economic weight than the knowledge they supposedly represent (see Berg, 1970 on this point)--it is something quite different and far less defensible to try to use this fact to infer that students' sole concern with a course is to get the credential (a good grade). On the contrary, the matter is extremely complicated. Students' goals in a course are a function of the relevance they perceive in the course (again, since their very registration in a course implies that they perceive the acquisition of the course credential relevant, the "good grade" must be considered a minimal goal of the students). The relevance that students see in a course depends in part on their long-range career goals, the way the course content is presented (e.g., to what degree does the instructor suggest the practical utility of the subject matter), and the practical experience the students may have in the vocational or academic areas the course content is referenced to (e.g., students in Child Care III-- see Chapter VIII--usually have experience working in the child care field and may evaluate the relevance of that course with reference to their work experiences). It should also be noted that students are not passive in the classroom context, but may actively try to make the subject matter relevant by asking questions relating to their practical interests. At the same time, part of the instructors' task is to convince the students of the relevance of the subject matter.

Types of Literacy Demands in the Classroom

The typology presented here (and we stress that these are ideal types--one should not expect to find them in a pure form in all community colleges) is generated from a limited data base and must be treated as suggestive rather than definitive.

The Literacy Demands of General- and Specific-Function Courses

General-function courses are usually explicitly and primarily concerned with teaching "basic literacy skills" (reading, writing, and math). By the very fact that they must serve a general function, however, they are very likely to be only loosely, if at all, integrated with the specific-function courses of the college; nor are they likely to be aware of or responsive to the desires of the faculty of specific-function courses (see, for example, the case of the Office Occupations faculty's dissatisfaction with the curriculum of the Freshman English course). It is also quite possible that general-function courses seemingly addressing the same basic skill may not be well-integrated with each other (see the case of the linkages between Freshman English, Developmental Writing, and the Tutoring system).

This lack of integration implies that the literacy demands of the general-function courses will follow a strictly internal dynamic--that the communicative and performative problems of these classes will be structured primarily by the assumptions of the faculty responsible for the construction of the course curricula: their assumptions about the nature of the "basic skill" in question and their assumptions about the students enrolling in these classes.

On the basis of our observations (and we stress once again the limitations and ambiguities inherent in attempts to generalize from the type of data we have), it would seem that faculty assumptions about the nature of the basic skills in question are heavily influenced by their training and the assumptions embedded in the textbooks they use. The basic skills are generally conceived of as being independent of context--in the sense that the use to which students are to put these skills are not considered. There is also an assumption (which may be either implicit or explicit) that the students in these courses are embarked upon academic career paths--in the sense of an extended pursuit of education in academic types of programs. Thus, one tends to find in these courses an emphasis on having students work exercises or fulfill assignments which call for the use or manipulation of categories or concepts about the basic skills derived from the instructors' training or the textbook. There is little or no attempt to link these exercises or assignments to the types of tasks or problem situations which the students would be likely to encounter either in other classrooms or in the practice of a vocation.

It is to be expected that the relevance of the general-function courses to students tends toward the minimal level: that is, the students know they need a good grade in the course, but the relevance of the course content to their long-range or immediate academic or vocational goals is not likely to be explicit or clear (e.g., the "aims and modes" of discourse theory in Freshman English, or the "subject matter/generalizations" of Developmental Reading can be only problematically useful to students in courses or work settings in which the reading and writing tasks are dissimilar to those of the classroom). The more pressured the students become for time and cognitive resources, then the more likely that they will merely try to "satisfice" in the general-function courses. That is, they will try to determine the minimal acceptable level of performance and the most efficient and straightforward means of attaining that level--finding out what the teachers want and giving it to them.

Many qualifications must be given to the model of student perceptions given above. One major point is that many of the students in, say, a Freshman English class, will be students attempting to embark on a career path that will take them to four-year colleges and perhaps beyond (this was true for the sites we studied. Other community colleges described in the literature may have very different student bodies; see, e.g., London, 1978). Such students may read greater relevance into general-function classes, and therefore attempt to "optimize" in them rather than "satisfice". The student's major is also an important factor in influencing the degree of relevance he reads into a general-function course (that is, a course such as Freshman English may be perceived as more relevant by students whose majors are attached to vocations in which writing is a highly visible and valued activity). Finally, charismatic instructors may play a role in making the subject matter of a course seem more relevant or interesting to the students (though hiring practices and the standardization of syllabi may constrain the instructor, see the section on "Organization of Instruction in this chapter).

Specific-function courses are elements in a set of courses (administratively grouped as a "program" or "department") which students are expected to take in pursuit of a major. These majors are linked either to vocations or to academic careers at other types of educational institutions. The instructors responsible for shaping the curricula of specific-function courses, and for actually teaching the classes, generally work to make their courses relevant to conditions in the non-school settings to which their programs are linked. (They do this by keeping up with the literature, consulting faculty at other educational institutions, consulting with advisory boards and business groups, hiring part-time instructors actively engaged in the field, and so on). The textbooks and other materials used in these courses are often closely linked to particular contexts of use (see for example, the textbooks used in the Business Communications course and in the Child Care III course in chapters VII and VIII). One can expect, then, that the literacy demands of specific-function courses are more likely than those of general-function courses to be related to or modeled on the literacy demands of non-community college contexts for which the students are preparing themselves.

Student Work/Educational Experience and Course Relevance

The students in specific-function classes varied greatly in their amount of work experience in fields related to their majors. Some were just out of high school, with no work experience or experience in higher education. Other had little higher education experience but extensive experience in the vocation (e.g., the students in Child Care III class, see chapter VIII); while still others had extensive educational experience, but were returning to school to gain training in a new field, to continue an interrupted education and so on (see e.g., the discussion of the backgrounds of accounting students in chapter IX. A more extensive discussion of student characteristics can be found in the "Student Careers" section of this chapter). Thus,students had various amounts of experience to draw upon when interpreting the relevance of the subject matter in a specific-function course (see the study of Child Care I lesson in chapter VIII for an example of students' attempts to make the subject matter more relevant through questioning). One thing that does seem clear is that most students who have chosen a major are to some extend committed to the vocation to which that major is linked. These students are, therefore, more likely to attempt to go beyond the minimal literacy demands of the course (those required to get a good grade) and to actively work at assimilating such knowledge as is available in the classes. One can, therefore, expect these students to tend more to "optimize" than to "satisfice"--to go beyond the minimal demands that must be met for the grade and to work to gain the knowledge that they see as relevant for their futures. (It may also be the case that the knowledge on which the students are tested in specific-function courses is more closely geared to the use knowledge relevant to the students. Thus the problems on the tests are often simulations of the types of problems the students might encounter in vocational or academic settings outside the community college (see e.g., the discussion of accounting problems in chapter IX).

Literacy Demands and the Types of Knowledge

We offered the suggestion earlier that different types of knowledge may be presented in the classrooms: reified, recipe, or sensitizing knowledge. All of these types may be found within the same course, but on the basis of our observations, we may offer the quite tentative generalization that general-function courses are predominantly concerned with what we have called "reified" knowledge--defined by textbooks and experts in the field, knowledge abstracted from practical use; specific-function courses are more likely to concentrate on recipe knowledge--the specific, explicit practical techniques for dealing with common everyday situations in a given field or vocation. Concentration on sensitizing knowledge is also likely to be found in specific-function courses (perhaps particularly introductory courses in these areas). However, one may also find specific-function courses that concentrate primarily on reified knowledge (see chapter VIII for an extended discussion of such a course, Child Care I). Certain generalizations can be made about the concrete forms of instruction found in courses concentrating on these different types of knowledge.

Reified knowledge is usually taught in a routinized manner: the subject matter, the assignments and evaluative criteria and means are explicit, specified and rigid. The lessons are often structured around textbook assignments, lecture format, and tests on specific subject matter covered in books and lectures. There is often an emphasis on learning terminology, concepts and categories--the application of which is not made entirely explicit (i.e., to materials or circumstances other than those presented in the classroom. See chapters IV, VI, and VIII for descriptions of such courses).

Recipe knowledge is usually taught in a somewhat more loosely organized manner than reified knowledge. Lecture and heavy textbook use is again to be found, but rather than concepts and categories, the subject matter deals with practices and procedures which supposedly have direct application outside the classroom. Tests over this type of knowledge tend to consist of attempts to simulate real-world problem situations. Instructors and students often exchange digressions and anecdotes on relevant situations they may have encountered in the field. Heavy blackboard use is common. (See chapters VII, VIII and IX for descriptions of such courses).

Sensitizing knowledge usually depends relatively little on textbooks or lecture knowledge (again, there are exceptions--Freshman English to a degree). Unstructured discussions between students, or between instructor and students, is common. Summative evaluation is infrequent. (See chapter VIII for a brief description of one such course and chapter II, Human Potential courses for another).

The strategies students use to meet the literacy demands of courses teaching these types of knowledge obviously vary. They are discussed in the section on "Student Strategies" in this chapter.

STUDENT CAREERS

To speak of the community college only in terms of curricula or organizational structure puts one at the risk of badly misunderstanding the experiences of students in the college. It is against intuition, tradition, and our experience to expect to find many students who take courses in only one program. Therefore, we need to describe the "academic careers" of students--the pathways they travel through the various programs and curricula.

To understand the practical experience of students in the college, from pre-enrollment to post-enrollment, it is necessary to investigate why and how their careers through the college are charted. In other words: What are the social situations of students at the community college, how do the students decide which courses to take in what sequence, and with what results, how detailed are their plans, how do they deal with unanticipated contingencies (e.g., failing a course, being forced to withdraw for non-academic reasons) and how do they accommodate these into their plans? The data from our interviews are fragmentary and incomplete, but we feel that these questions are generally neglected and that they are important enough to warrant whatever conjectures and speculations we are able to make.

In the following sections, we discuss broadly the student culture (social situations of the community college educational system), both as it affects and is affected by the student population: their aspirations, goals, perceptions of the educational processes, personal situations, and how these interactive elements generally affect their educational experience. We also present the reasons students provide for attending college, factors in selecting majors, as well as students' purposes and motivations in particular courses, the nature of student expectations, and work/school conflicts, instructional style, and withdrawals. Finally, we provide summary and conclusions.

Student Culture

It has long been commonplace that students tend to develop shared perspectives on the school. Willard Wallar, in 1932, speaks of "the culture of the school" and "student culture" and describes the classroom as an arena of conflict in which teachers and students struggle with organized groups of students over the definition of the classroom situation. This approach was elaborated and applied to institutions of higher education by Howard Becker and his colleagues. Summarizing briefly, the student culture approach assumes that groups of people who share highly similar social situations possess or develop "perspectives". A perspective is a "co-ordinated set of ideas and actions a person uses in dealing with some problematic situation." It refers to a "person's ordinary way of thinking and feeling about and acting in such a situation":

> These thoughts and actions are co-ordinated in the sense that the actions flow reasonably, from the actor's point of view, from the ideas contained in the perspective. Similarly, the ideas can be seen by an observer to be one of the possible sets of ideas which might form the underlying rationale for the person's actions and are seen by the actor as providing

> a justification for acting as he does (Becker et al., 1961:34).
>
> A perspective, to be more precise, contains several elements: a definition of the situation in which the actors are involved, a statement of the goals they are trying to achieve, a set of ideas specifying what kinds of activities are expedient and proper, and a set of activities or practices congruent with them (Ibid.: 436).

Such perspectives have been a defining characteristic of educational systems, and a variety of mechanisms served to reproduce and maintain them: age-grading; dormitory life; classroom organization; curriculum organized as a more or less routinized series of courses--large groups exposed to the same texts, instructors, and experiences. More recently, sports have emerged as a powerful organizing influence in educational institutions, while student associations such as fraternities have long histories as loci of student culture.

Absence of Student Culture

Although there is tremendous variability within the community college movement, the mechanisms to reproduce and maintain the perspectives discussed above are missing, by and large. At the colleges we observed, and at most other community colleges, there are no residence halls, no athletic teams, no fraternities, no age-grading systems (no freshman or sophomore classes). Curricula are loosely defined and even more loosely sequenced. Students are drawn from all areas of the cities, the open-door admissions policy assuring a wide distribution of background characteristics. From college statistics, we determined that over 70% of the students are "part-time" and may spend little if any time on campus except when they are attending classes; they may associate little, if at all, with other students on informal bases outside of the classrooms. There were informal student support groups that developed within some program majors (e.g., data processing); other student groups we observed were either very isolated minority groups (e.g., Iranians), or small groups preparing assignments before class (e.g., physics students working on problem sets). None of our interviews or observations suggest that students meet or consort with one another outside the school.

Results from a survey conducted during registration (fall, 1979) at one of the colleges included in this research showed that over half of the students responding (the response rate was approximately 10,009) did not attend the community college in order to gain university transfer credit; less than 40% of the respondents aspired to an Associate of Arts degree. The majority of students saw the role of the community college in their educational goals as one of merely providing "selected" courses (these figures varied depending on whether the students were majoring in academic or vocational programs). Many of these students were mainly interested in improving their job skills, but over 50% of those responding to the survey were classified as "transfer" or "transient" students. Both of these terms are ambiguous, and college administrators say that they really cannot distinguish between the two. The categories could include those students who have been, are concurrently, or will be enrolled in one of the almost half-dozen four-year colleges in the area. Exact figures are not available, but it was the impression of many instructors and observers that a large section of the student population at the college, concentrated in certain program areas for which the community college course-credit was transferable to four-year colleges (particularly business courses and the like), was co-enrolled at some four-year college.

Only for a very small segment of the student population is the school the major focus of life--over 70% (7006) have jobs, many have families and children. Only a third of the students enrolled in college-credit programs are between the ages of 17 and 22; over two-fifths are between the ages of 22 and 30, and the rest are older.

Types of Students

The community college does not differ from other colleges only in the social situations of the students within the school; the types of students it attracts, the majority of them at any rate, are in a structurally different position from students at the more traditional four-year institutions of higher education.

While there are some indications that the traditional picture of the typical university student is changing somewhat--given economic and political conditions--these four-year institution students and community college students can be very loosely contrasted: students at four-year colleges are, by and large, except for summer interludes, out of the full-time, life-career job market; they are part of a distinct academic subculture, or at least as Becker and his associates (1968) put it, that places a value on "making the grade" --and such scholarship as is involved in making the grade. The community college student, however, moves if for only a small part of his time, in the academic world, but he is not of it. He does not engage in the isolated rituals of the day-in and day-out concentration on the academic "environment"; he does not actively engage in social interaction with his peers. In other words, there is no-ongoing environmental support for the community college student. He must integrate life outside the school with school-life, with the resultant disadvantages of competition between academic tasks and personal/financial--time--constraints. The four-year college student, on the other hand, more likely is able to concentrate primarily on school life.

Reasons for Attending College

Our data (college student follow-up data and student interviews) suggest that there are three broad and obvious categories of reasons why a student might attend the community college.

1. Work-related reasons: These may be at least three kinds: (a) to improve skills in an occupation in which the student is already employed, to "sharpen my skills in my area of work", as one student told us; (b) to gain training in an area of work to which the student aspires--this may entail either taking selected courses, as was the case with one of the students interviewed, who found that he was able to get a job in the desired area and did not need a degree (some vocational program instructors mentioned losing students to full-time employment after taking one or two courses in the program); or it may entail striving for a two-year degree: as one student told us "Every kind of job I see posted, some kind of degree is required"; (c) to acquire credentials needed for promotion within an organization in which the student already works: as a

student told us:

> I noticed that most of the people that were advancing where I work were people that had degrees. And I felt that if I didn't continue (in school), I wasn't going to have a chance...

One difference between categories a and c is that the former reason generally applies to students in lower-status productive occupations (our label), while the latter usually applies to students who are in mid-management occupations (our label).

2. Eventual attainment of a four-year degree. There are two student subtypes here: (a) there are those students who are seeking an Associate degree, or at least intend to do substantial course work at the community college before transferring to a four-year college. These students usually pursue a degree plan in a specific major instead of taking selected courses; (b) some students pursuing a four-year degree "drop in" to the community college to pick up certain courses, usually "basic" or general courses which will transfer to their four-year colleges (in which they may be concurrently enrolled). Several students interviewed said that they had been advised by counselors at the four-year colleges to try the community college. Though it wasn't stated explicitly, there seemed to be an assumption either by the students or the counselors at the four-year colleges that the community college was "easier" in some way--at any rate, the students picked up "basic" courses with which they had had trouble at the four-year schools.

3. No specific plans, occupational or educational goals. These students have a vague feeling of a need for "more education", but no specific idea of just what that education is needed for. Alternatively, they may have some idea of just what they want to do, but are uncertain of their commitment and unwilling or unable to devote all of their resources to their tentative goal. These students seem to rely heavily on a school counselor for making course selection choices. They are often counseled into "basic" or "general" courses since these are seen as having a broad application to many different types of programs. Major-specific courses are generally put off or avoided because of the students' uncertainty about their ultimate goals.

Factors in Student Selection of Major

In order to receive a credential from a higher education institution, students must meet the requirements of a degree plan or program of study. While only a small percentage actually receive the credential (looking at enrollment figures for 1979 and graduation figures for 1981, 3% received credentials--see Loci of the Study), fifty percent officially declared a major. Undecided majors (actually only an administrative category since there is no "undeclared" degree plan, although with the appropriate course work, such a major can receive a credential for the area for which his course work qualifies him), if they are even considering eventual transfer, are encouraged to select a major. The institution argues that this selection will allow them to more easily move into senior colleges (which will evaluate their transcripts for transferrability and appropriateness of courses by major).

There seems to be an implicit assumption in our society that a person who is in college is working toward a degree; this assumption supports pressure to require students to select a major. The complex relationship between this assumption--both on the part of the student and the institution--and the institutional emphasis on selection of a major seem to encourage early/premature selection. Most students, therefore, do select a major at some point in their academic career whether or not they actually pursue the credential.

The Decision-Making Process in Major Selection

The decision-making process in major selection is varied and, for many students, is generally not related to information gathering actions which provide the student with specifics on which to base career decisions (see Student Services, Career Counseling section). It seems that students often make premature commitments to a major based upon idealized concepts of what it means to be an "accountant" or "marine biologist", etc. Frequently, the students have an acquaintance or family member working in the major area from whom they have gained general impressions and perhaps from whom they have offers of help with finding employment in that field. Vocational preparation in high school or previous work experience in an area also seem to predispose students to choice of major, and this may limit their exploration of other options.

Sometimes parents have told their sons and daughters to major in a certain field. Sometimes students do not want to wait in long lines to see counselors for academic advising or do not want to see counselors because of bad experiences with high school counselors and may choose a major to speed up the orientation and registration process or to simply avoid seeing a counselor (see Student Services, Academic Advising section and Accounting). Some of the students who choose a major for these reasons may find that their chosen field is not for them, but they do not know what is; others are satisfied with their choices after exposure to the subject matter and course work. Both groups make course selection choices based frequently on premature commitments to a given major.

The findings of this study (see Loci of the Study) suggest that some students' ethnicities or particularistic backgrounds "sort" them into particular programs; but the students are the ones, in these cases, who make the selection. We found no evidence that particular groups of students were advised by college personnel into any particular programs. What we did find, however, is that some vocational programs are more likely to be chosen by minority groups (minority by ethnicity or sex) than by majority groups (see Child Care, Office Occupations, and Math Skill Development chapters). We would hypothesize that, from our analysis of data, these groups are already employed in these particular vocations and choose to upgrade skills or receive special credentials for continued employment, and so forth.

Over 50% of the student body can be generally classified as undeclared majors--this category includes two official categories: Undediced and General Studies majors. Although approximately one-fourth of the students who are "undeclared" actually have a definable major in terms of the courses they take (for example, someone who is enrolled only in accounting courses may be considered an accounting major), others unsure of their options choose a process we call "major shopping" in which they sample courses in different areas before declaring a major.

Students who come to college for work-related reasons seem to have the most information on which to base program of study choices because they have direct exposure to the skills, knowledge, and type of degree most appropriate for their work.

Students who cannot find employment in the field of a previous degree have varying amounts of information about areas for possible employment and make choices based on this information. Frequently, they are currently employed in the field of their chosen major.

Regardless of the adequacy or appropriateness of the student selected major, that choice--even for Undeclared or General Studies majors--directly affects the program of study which they will undertake at the college. That is, students will be advised or may advise themselves based on the program of study requirements of the selected major.

Basic Skills Assessment

In order to provide the students with information concerning their basic skills knowledge and ability, for consideration in course selection, the college provides reading, writing, and math assessments during new student orientation (see Reading, Writing, Math and Student Services chapters for details of these processes and procedures). For those students who do not possess either the requisite skills or the confidence to negotiate "regular" college level courses, the sites provide special services through developmental programs (courses and tutoring assistance). At the research sites, students were given a standardized test in reading, were asked to submit samples of writing for evaluation, and were given locally-developed math placement tests (if they were enrolling in math courses).

The research sites had voluntary systems for assessment and placement. That is, students were tested and then advised and counseled on the bases of these tests, but not required to enroll in remedial courses, no matter how low their scores. But as our analyses made clear, the ways in which test scores are presented and explained to students are not neutral processes. Students scoring below a criterion level on an assessment test in a voluntary system may still be required to undergo special counseling in which they are warned of dire consequences awaiting them should they fail to enroll in remedial courses.

The classification and labeling of students, whatever the criteria used, are important only insofar as they have consequences for the students. Broadly, there are two sorts of consequences: those for the students' psyches--their self-esteem, attitude, motivation, and so on, and the consequences of the tests for the students' organizational careers (their placement in the curriculum).

About the effects of the assessment tests on students' psyches we can say little. It is commonplace in the community college literature that developmental or remedial students are "possessive of a poor self-concept due to previous failure in educational experiences, and unmotivated by academic competition (Aron, 1978: 232). Our own observations suggest that such sweeping generalizations mask a very great degree of heterogeneity in attitudes, expectations, and motivations of developmental students. The assessment tests used at the college are much the same as students would have encountered in high school, and it seems unlikely that test results alone would surprise students one way or another. What seems crucial, then, are the consequences of the tests for the students' academic careers.

From our analyses we could derive no clear student response patterns to the pressure for developmental courses. The courses are volutary in nature (though, for students attending orientation, the testing and advising are not voluntary). At the most, we can say that some of the students enroll in developmental studies courses because they are uncertain of their goals or of what they need to be able to do to succeed in college.

Purposes and Motivations in Course Selection

The student's selection of a course is a product of the interaction of the student's reasons for attending college, his choice of major, and the information that the student receives or acquires about the appropriate academic career path for accomplishing that purpose. We can make some general speculations about students' purposes in taking courses. (1) Students attending college as a means of attainting a four-year degree almost certainly have accurate information about the proper courses to take in terms of fulfilling their four-year degree requirements and are, therefore, very likely to have clear ideas about the relevancy of the courses to their plans. (2) Students who enter the college without a clear-cut purpose probably depend on advisors and counselors for much of their information about course selection (or more generally, the selection of programs in which to take courses). They are likely to lack any elaborate framework for judging the "relevancy" of a particular course. These circumstances may lead to these students being counseled into "general-function" courses (see Student Services and Attrition chapters). If they take specific-function courses, these are sometimes taken on an "experimental" basis; or courses from two different programs may be taken (e.g., Data Processing and Law Enforcement). (3) Students who enter the college for work-related reasons are in an intermediate position between the other two types, having, of course, accurate information about which program of study they wish to pursue, but having to rely on information brokers for information about which courses to take within those programs (and in what sequence). Moreover, these information brokers are likely to be faculty advisors (administrators or instructors) in a content program with limited knowledge of the general-function courses the students must take if they are pursuing degree plans (see Student Services, Academic Advising section). The student's notion of the relevancy of a particular course will depend to a great extent on his practical experience in the area of work for which the course is designed to prepare him (and from the student's association with other students who have work experiences in these areas).

Students' conceptions of the types of knowledge offered by a course constitute a continuum from "irrelevant" to "important" with regard to the purposes that students have in taking the course. These conceptions, like the purposes themselves, are not rigidly set, but are in a process of continual reproduction throught the interaction of the student with his environment.

In summary, once in a particular course, a student's purposes in that course are a product of the interaction of the instructor's classroom practice (shaped by the organizational situation of the instructor, this being in turn shaped by the place of the program in the organization of the school, instructor's experience and training, and especially by the linkages between the program and the occupational structure) with the student's set of expectations leading to his taking the course. And finally, the student's purpose is a product of the sense which the student comes to possess (as a result of classroom interaction) of the relevance of the course to his future.

The Nature of Student Expectations

Most students expected that courses would prepare them for negotiating their other courses, help them get a job or a better job, and for meeting the demands of current jobs; when they found that the courses were not fulfilling those expectations, they said, "Maybe I will be able to use it someday." But for the most part, students did not seriously question why the courses did not prepare them: they accepted responsibility for having narrow vision or lack of information about the total picture; they rarely questioned why they were learning what they were expected to learn. Students typically expected the instructor to tell them what to learn, to provide suitable instruction to get the point across; but they assumed that it was their own responsibility to "get" what the instructor dispensed. There were frequent references to "it's not like it was in high school where they called on you and asked you questions."

Perhaps the most pervasive, certainly the most crucial element in this discussion--given the focus of the study--is the expectations about reading and writing that students bring to college. It cannot be assumed that students enter the community college with the expectation that they will not have to read or write well to be successful there--although there are some variations on this theme given their reported experiences with limited reading and writing demands in high school. There are, however, grave concerns which arise from our findings that students come to expect, through their college experiences, that reading and writing are not important in themselves--that instructors do not demand them, beyond brief, disjointed passages of reading for specific information or writing in disjointed responses to specific, narrow questions. And that the reading and writing of lengthier pieces is reserved (in some "contract grading" classes) for those students who wish to "contract" at higher levels for better grades, or they are assigned infrequently or not at all.

While students bring varying expectations to their courses, they carry one common expectation: they expect to get a grade for their efforts. We found no students who were uninterested in making a passing grade. When students enter courses expecting to achieve a grade and elect to seek a good grade (or, at least, a passing grade), they are subject to the literacy demands of the course; they must solve certain communicative and performative problems (see definition of literacy demand) to meet at least the minimum requirements.

Work/School Conflicts, Instructional Style, and Withdrawals

Our analysis of student records revealed a large number of withdrawals by probation students, along with frequent repetition of courses from which students had withdrawn. Data from our interviews with probation students indicate that these practices may be related to work/school conflicts that students' experience and with students' preferences of instructional style.

We must note to begin that there are two broad types of reasons given by students for withdrawing from classes. The first type is those factors over which the students have little or no control: illness, being sent out of town for job-related reasons, changes in working hours, and so on. The second type is these classroom and content factors: students are having difficulty with or are dissatisfied with the course. We suggest that the second type of reason is much more important than conventional survey studies of withdrawal would indicate. This is because work/school conflicts, which are usually counted as being of the first type of reason for withdrawing is actually related closely, if complexly, to the second type of reason. In other words, the strains put on the student who has to work full or part-time do with schoolwork in any direct or simple way. Most of the students in the college, and most of those on probation whom we have interviewed, work more than half-time (most over 30 hours a week, in fact). This does put a strain on the student's resources, but it is not a general, unspecific strain--it is a strain against certain types of courses taught in a certain instructional style. These are the types of courses most likely to be dropped.

One general feature of courses that makes them likely to be dropped by students experiencing work conflicts is simply the amount of time they require the student to expend. This is generally a feature of the type and function of the course rather than of instructional style. General-function courses teaching "theory" type knowledge generally require a greater expenditure of time because they focus more on book- or lecture-knowledge. The student must demonstrate the acquisition of the knowledge by means of explicit and detailed performances (e.g., writing a paper, doing homework assignments) that cannot be hedged or avoided in any simple way. Specific-function courses focused on "sensitizing" or "recipe"-type knowledge usually require less explicit demonstrations and often allow the student some leeway reallocating time as necessary. That is, the student is required to complete some set of tasks (e.g., do X number of welds) in the course of the semester, or simply to participate in class discussions, or something of this nature. This is merely suggestive, we can give no hard indication of the comparative time requirements of the different classes. However, we do know that those classes which require the greatest expenditure of time are more likely to be dropped first.

A second factor determining which courses will be affected the most by work conflicts is the instructional style of the teachers of courses. Briefly, students who have heavy time commitments to work favor those instructors who cover the course material in their class lectures and speak specifically to what will be required on the tests in the class. The teachers who "break it down good" in their lectures are preferred. When one's job puts constraints on time and energy, courses not taught in this style would be the first to go. We might suggest, in fact, that withdrawing from, and then retaking courses (a fairly frequent occurrence according to the student records), is in some instances a matter of the students shopping for instructors with suitable teaching styles. At any rate, some of the probation students we interviewed laid a great deal of the blame for their problems in school on their instructors, and then gave us instances of taking the same course over with a different instructor and doing much better because the instructor was "better". Withdrawing, then, may be a strategic tool for avoiding those courses which place the greatest literacy demands on students (i.e., the ones in which the instructors require the students to know things that must be learned from books, that aren't covered in lecture).

Summary and Conclusions

Student academic careers--the pathways they travel through the various programs and curricula of the college--are influenced by a multitude of factors: absence of student culture, complex personal constraints reasons for attending college, their choice of major and the relationship of the courses required in that major, their expectations of college life, the skills, abilities, and knowledge they bring with them to college, as well as instructor style and classroom practices. The complex interplay of these factors impact student perspectives of the usefulness of the college experience and their way of dealing with the school situation.

Concerning the lack of student culture, there is no on-going environmental support for the students: they do not engage in the isolated rituals of day-in and day-out concentration on the academic environment nor do they actively engage in social interaction with their peers. Furthermore, these students face decisions concerning academic tasks and personal constraints that differentiate them from their four-year counterparts.

Over 70% of the community college students work (many of them over 30 hours per week). The strains put on the students who have to work full- or part-time and tend to other familial commitments do not translate into conflicts with schoolwork in any simple or direct way.

Course selection is a product of interaction of the reasons for attending college, choice of major, and the information that the student receives or acquires concerning the appropriate career path for accomplishing that purpose (assessment and advising, etc.). Once a student enrolls in a course, his purpose in that course becomes a product of the interaction of the instructor's classroom practice (shaped by previous training and experience, the organizational situation of the instructor, in turn being shaped by the place of the program in the organization of the school, and especially by the linkages between the program and the occupational structure) with the student's set of expectations leading to his taking the course. Finally, the student's purpose is a product of the sense which he comes to possess (as a result of classroom interaction) of the relevance of the course to his future.

The strains these various factors place on the students' resources seem to be reflected in specific instances. There is a strain related to certain types of courses--courses that require the greatest expenditure of time. Instructional style of the instructor is another; it appears that the more effective the instructor is at covering the content in class and specifying the material that will appear on exams, the easier it is for students who have heavy time commitments to work and negotiate the course. Students may choose to withdraw from a course with heavy literacy demands and "shop around" for the instructor who will present the content in a style more compatible with his study needs.

Our findings lend little support to the "cooling out" thesis. Testing affects only a minority of students. Recommendations made on the basis of assessment tests are not binding to the students, and there is no clear evidence that the taking of developmental courses--the only possible practical outcome of the assessment tests--hinders the students (though there is no clear evidence that it does them any good either).

We have no evidence of students being counseled into vocational programs against their inclination--the distribution of majors among probation students was roughly the same as that for the entire school population. Choice of major seems to be influenced by a number of factors, but seems to be generally based on insufficient information concerning the options available (except for students who attend for work-related reasons). In fact, as we have seen, there may be a tendency for counselors to counsel uncertain or undecided students into "general function" courses rather than specific vocational programs.

There is some evidence for the existence of "mandatory" or required courses, and it seems that these courses are responsible for a disproportionate number of student failures. However, we have trouble with the idea that these courses are "designed" to fail a certain proportion of students. Rather, it seems that they present the students with objectivly greater literacy demands--both in terms of time required and the specificity and explicitness of what the student is required to perform. The one institutional feature that does seem to unnecessarily increase the difficulty of the courses for students is that the faculty who design their curricula do not make any systematic effort to relate the content of these courses (or the "skills" they are supposed to impart) to any of the other academic situations in which the students might find themselves in college. There is also some evidence to suggest that these curriculum designers are implicitly using the four-year college or university as a model in constructing their programs and in encouraging students to select a major.

Academic probation is certainly a poor means of socializing the students to accept failure, if, as seems to be the case, some students are unaware of their probation status, and most others do not understand what "probation" means. Finally, we have surprisingly little evidence that students accept their failure as "legitimate" in any way. True, many of them are not surprised by their academic problems, but almost without exception, they feel that in some way the college has let them down--by a lack of adequate assessment and placement, by inadequate instruction, and so on. We should note here that these complaints are almost always *local*. The students generally look very favorably on the college and community colleges in general. They see their problems in a very particularistic fashion: such and such a teacher, such and such a course are recounted as the sources of the problems. As we noted above, some of the students' behavior in dropping and retaking courses can be accounted for as part of a strategy of searching for an instructor with a congenial approach.

We found, as witnessed by the fact that over half of the probation students interviewed said they were thinking of continuing their education at a four-year college, that students' *aspirations* had not been significantly dampened, even by a notable lack of success in the college. The The students' *expectations* ranged from uncertainty to a feeling of frustration that the college was not doing more for them.

Students expect that college will prepare them to negotiate other courses, help them find jobs or better jobs, or help them meet the demands of current jobs. Yet if the courses did not provide what students needed, they did not question why this was so.

One expectation common to all students is to get a grade for their efforts. We have hypothesized in various chapters (Part II of this report) that students in general-function courses may well be interested primarily in receiving the grade while students in the specific-function courses may be interested (perhaps more so) in getting much more--specific information or skill that will directly affect what happens to them on the job or in direct-interest educational contexts in their major field. Obviously, there may be students whose only goal in a course is to get a good grade; however, we purpose that these students would tend to cluster at the general-function level more noticeably than at the specific-function level.

As we indicated in the introduction to this section, the data from our interviews are fragmentary and incomplete. And the relationships we attempted to delineate and weave into a student careers' framework are complicated. Nonetheless, since the questions are generally neglected, and they are important, we felt the need to attempt description and synthesis of our findings. The relationship of the factors described here is further examined in the following sections on "Organization of Instruction" and "Student Strategies".

THE ORGANIZATION OF INSTRUCTION

The organization of instruction discussed here attempts to crossut the programs of study (and specific courses) investigated and to generalize on the basis of the findings. Our analyses of data on the recruitment and hiring of instructors, full-time to part-time instructor ratios, textbook selection, syllabi construction, classroom practices, departmental/school knowledge of students in the programs, etc. led to findings and interpretations concerning the organization of instruction at the research sites. We found that the processes of structuring of curricula vary in relation to two primary features: (1) type and amount of control exerted by departmental administrators and (2) the size of the department and what it teaches. In turn, these processes have consequences for the coherence of programs of study, and, therefore for the academic careers of the students.

In the following sections the findings and interpretations are presented as: general findings about faculty, features in and processes of structuring the curricula, and amount and type of departmental control. We conclude with interpretations of the consequences of the curricula structuring processes on coherence of programs of study and their impact on students' academic careers.

Some General Findings: Faculty

Most of the instructors at the research sites have master's degrees and little or no training in educational philosophy, theory and methods. The majority of instruction is, according to college statistics, carried out by part-time instructors, who outnumber full-time instructors by three-to-one or four-to-one, depending on the campus being considered. According to a college study in the summer of 1980, this part-time to full-time ratio is one of the highest in the state. This situation is largely the result of the financial status of the college.

The contracts of full-time faculty guarantee employment for one year (and generally once a person is hired full-time, s/he tends to be rehired annually). Full-time status insures input into developmental affairs, especially in matters of curriculum development, provides for collegial contacts that enhance communications (both social and professional) and institutional affiliation. Furthermore, full-time faculty have office space; while they may have to share it with one or two colleagues and maybe a secretary, there is at least a place (desk) where they belong.

For part-time faculty the employment picture varies. Contracts are issued by semester as student demand dictates the number of instructors to be hired. Part-time faculty are disproportionately represented in evening and night classes and often work during the day at other jobs. (This also means that students who attend those campuses of the college that offer only night classes are being taught, usually, exclusively by part-time faculty.)

The sites use several mechanisms to inform part-time faculty of their responsibilities. Officially speaking, the only apparent links between the part-time faculty and the administration are the part-time faculty Handbook and the part-time faculty orientation sessions at the beginning of each semester. The faculty Handbook is generally a descriptive tool and does not contain specific information about discipline areas.

Part-time faculty are important to the college for a number of reasons. Two are addressed here: (1) Administrators and instructors in occupational areas stated that part-time instructors in high technology fields (such as electronics) which are heavily ensconsed in the region are depended upon for keeping the curriculum up to date; (2) Administrators say that the fields are changing so quickly that full-time instructors cannot keep up with the innovations. In addition, certain vocational areas hire professionals--e.g., banking courses, taught exclusively by part-time faculty who are banking officials--who then act as funnels for placing students into jobs.

Although there is variation by program (e.g., numbers of full-time faculty available to teach a wide range of courses), it is generally the case that the academic departments have a preponderence of part-time faculty teaching their basic and "introductory" courses, while the full-time faculty teach the upper-levels; on the other hand, vocational areas tend to assign their introductory courses to full-time faculty and hire part-time "specialists" to teach their more specialized courses.

Interview evidence suggests that despite efforts to overcome the problems of part-time employment, the part-time faculty perceive a lack of contact with the administration as well as with full-time faculty. (The fact that part-time faculty have little or no office space contributes to this perception.) The atmosphere surrounding the types and quality of interaction among full-time and part-time faculty is pleasant, cooperative, and professional, but interaction is limited (see previously mentioned constraints). However, this limited contact leaves the part-time instructor with little or no feedback concerning his performance in the classroom. Part-time faculty have expressed desires for change in these support procedures.

Some of the consequences of this heavy institutional dependence on part-time faculty will be examined in the following section of the features in and processes of structuring the curricula.

Features and Processes of Structuring the Curricula

Teachers usually teach within one department only. The exceptions are instructors who teach "skills"--such as reading, writing, and math--in both developmental and traditional curricula departments (e.g., instructors who teach both developmental writing and Freshman English). There are only a few such teachers, and they are all employed on a part-time basis. The findings presented below derive from our analyses of the data in Part II of this report.

(1) Recruitment for instructors takes place primarily at the departmental level, and the main agents in recruitment and hiring are usually department heads or full-time instructors. Qualifying statements are necessary here. The procedures for hiring full-time instructors are more complicated--involving formal review committees--than those for part-time instructors. Moreover, higher level administrators can influence the hiring process, especially in the case of full-time instructors where ultimately presidential approval is required. The hiring of part-time instructors seems to be more firmly under the control of the departmental heads--there are review committees for these positions, but the appropri-

ate department heads usually dominate them and have final say on matters of hiring.

All in all, however, we would suggest that department heads and their full-time instructors are able to exert a large amount of control over the hiring of part-time instructors in their departments and that in this manner they can control to some extent how a course is taught by selecting for instructors with certain characteristics. Among these characteristics may be: (1) certain types of credentials in certain academic areas, (2) non-academic experience in an area of work, (3) teaching experience, (4) adherence to certain theories or educational ideas. The section on developmental reading program provides a striking illustration, although less complex forms of this sorting can be observed in almost all programs. It may not be a theory of the subject matter that is selected for (as in the reading program), but an approach to instruction (e.g., "individualized instruction", "behavioral objectives," etc.).

Amount and Type of Departmental Control

The amount and type of control department heads exert on their instructors depends on the size of the department and what it teaches.

(2) Departments or programs whose professed function is to teach "skills" to the students (i.e., reading, writing, or math) tend to try to control their instructors by controlling the theories of subject matter that these instructors hold. The manner of control varies with the size of the program:

(a) In programs or departments with large numbers of faculty members (and usually this means a very low full-time/part-time ratio) control usually takes the form of a standardized syllabus and tight control over textbook selection. That is, rather than trying to assure a certain type of instruction through hiring instructors with specific theoretical allegiences, the theories are embedded in curriculum. Sometimes this may result in situations (as in Freshman English) in which some part-time instructors teach a course based upon a theoretical approach which they may not understand or agree with.

(b) In programs or departments with small faculties (and with relatively high full-time/part-time instructor ratios) the instructor selection process plays a much more significant role--instructors being quizzed in their hiring interviews about their training and theoretical preferences in teaching the "skill". The standardization of the curriculum may or may not take place.

One of the important differences between the "skill" courses discussed in item 2 and what we are calling "content" courses is that all of the courses in a program designed to teach a specific skill (say, the developmental reading classes and the skill of reading) are considered to be intrinsically related (perhaps hierarchically related in terms of the "level" of the skill they teach). In "content" programs, however, there may be a variety of courses whose relationship to each other is ambiguous. This stems from the fact that the organizing principle of these types of programs is not a unitarily-conceived, autonomous skill or ability, but the set of practical knowledge needed to perform an occupation (for the "vocational" programs) or the set of general academic knowledge needed to qualify the student for admission to a four-year institution (for the "transfer" programs). Thus, a student majoring in the Office Occupations program (training for office work) is required to learn both shorthand and how to use a word processor--there is no intrinsic epistemological relationship between the two (as there is between "beginning reading" and "intermediate reading"), but both are relevant to work in office occupations.

(3) The department heads of the "content" programs, therefore, are less likely to attempt to standardize the syllabi for the entire program or to exert absolute control over textbook selection. However, this varies with the degree that the skills or knowledge taught in the program are "specialized".

(4) If the skills or knowledge taught in a course are specialized, that is, if they require special training or experience to the extent that no one individual would be expected to possess the skills necessary to teach all of the specialized courses in a program, then the program head will probably hire a "specialist" to teach the course and allow that specialist a high degree of autonomy in selecting the textbook and structuring the curriculum of the course. Thus, the chairperson of the Child Care program hires a nutritionist to teach the Nutrition course and allows the nutrition teacher almost total control over what is taught in the course.

(5) If the skills or knowledge taught in a content program are "general" rather than "specialized"--that is, if it is reasonable that one instructor be expected to know or possess all of the skills or knowledge of all the courses in the program, then the department heads or full-time instructors may attempt to exert greater control over the design of the syllabi of each course (even if they do not teach it) and to select the textbooks. Correlatively, the part-time instructors selected to teach these courses may not have any special training or experience in the subject matter of the courses they are hired to teach. Thus, in the Office Occupations program, the department head and full-time instructors consider themselves competent generalists to the extend that they select the textbooks and design the syllabi for each specific course in the program. (Part-time instructors may make suggestions, but the full-time instructors have the final authority). In addition, the part-time instructors are not hired as "specialists" in any particular area, but may in fact switch from course to course over a period of semesters.

Consequences of the Curricula Structuring Features and Processes on Coherence of Programs of Study and Students' Academic Careers

The situations described in (1) through (5) concern the processes of structuring of the curriculum. The next issue addresses the consequences of these processes on the "coherence" of the curriculum. By "coherence" is meant the interdependence of the knowledge or skills taught in the different courses of the program.

(6) In "skill" programs the standardization of syllabi, centralization of textbook selection, and screening of instructors tend to produce strong intra-program coherence--at least from an administrative point of view.

"Program", "course", "department", and so on, as we have used them so far, correspond to administrative units of the college--or rather to administrative units in the organization of instruction. However, if one looks at the college from the point of view of the student, the administrative units lose much of their relevance. Any student planning a "career" in the college will almost certainly have to take courses in more than one administratively-defined department. Even those students whose immediate aim is not an AA degree are often advised to take such "required" courses as Freshman English, while many of the business vocational programs require math courses. The fact that these "required" courses have by far the largest headcount enrollments of any programs in the college suggests that, even though few students seem to follow their careers through to graduation, many take the required courses supposedly leading to graduation. Thus the English program, while having only about 60 majors has approximately, 3,000 students (about one-fourth of total college enrollment) taking English courses in any given semester--the vast majority of whom are taking the Freshman English course because it is required for a degree. Now we have seen that the English full-time faculty exert close control over instruction in Freshman English (in the face of the necessity of using a large number of part-time instructors) by selecting the textbooks and rigidly standardizing the syllabus. But what does this mean to the vast proportion of the students in the Freshman English course who have little intention of ever enrolling in another English course? Very little, we would suggest. The very processes which we have outlined that contribute to the coherence of administratively defined programs, also work at the same time to cut these programs off from other programs in the college. Each program becomes an autonomous entity, pursuing the dynamics set for it by its department head and full-time instructors, with little regard for making itself relevant to other programs in the college. The consequences of this may not be worrisome when we are speaking of a program such as Child Care, where the students' aim in taking the courses of the program may be inferred (and our studies bear this out) as seeking to acquire training or knowledge in the practice of child care. There is no particular reason we can think of why child care, or other specific-function vocational courses, should be relevant to other courses in the college. The situation is quite different for Freshman English where we would expect that the main rationale for the course would be its relevance to other courses (in other programs), otherwise why require it of all students?

The discussion above may be summarized by saying that there is a disjunction between the administrative organization of departments, programs, and so on, and the academic careers of the students. The organization of instruction tends to strengthen the coherence of administratively-defined units of the college, while weakening the coherence between units. The typical academic career of the student includes general-specific and specific-function courses (courses within a program of relevance mainly to students majoring in those programs and seeking vocations outside the school for which these programs supposedly prepare them) and general-function courses (required by the school) which supposedly impart to these students skills or knowledge that will help them in the other aspects of their academic careers (the specific-function and general-specific function courses). It would seem then that the organization of instruction, by initiating processes strengthening the autonomy and isolation of all programs, encourages the administrators of the general-function courses to structure them in such a way that they lack any relevance to the general-specific and specific-function courses of the students' careers.

For example, the chapter on the Office Occupations program shows that the administrators of this program felt strongly that the skills or knowledge that the students majoring in their program were learning in Freshman English were useless or inadequate for the demands of office work. Complaints to the administrators of the Freshman English course produced no results, so the administrators of the Office Occupations program attempted to institute their own course--Business English--to teach the basic writing skills that they felt Freshman English was failing to teach. The curriculum committee of the college would agree to a Business English course, however, only if it were administratively within the English department--a situation that the administrators of Office Occupations felt would merely reproduce the present situation of the Engish instructors following their departmental dynamic instead of serving the needs of the office occupations students. The response of the Office Occupations administrators was to withdraw their request for the Business English course and instead try to incorporate the writing skills they felt their students lacked into an already existing course in their department.

One consequence of the lack of coherence between programs and departments and the administrative autonomy of the programs (including the fact that they do not share instructors) is that, as in the case of Office Occupations, the various programs, when they need general-function courses relevant to their particular needs, set up courses within their programs to meet these needs. Thus Office Occupations has a Business Communications course (and would like to have a Business English course) serving the functions they would have liked the Freshman English course to serve. They also have an Orthography course within their department (rather than relying on the "vocational" course of the developmental studies department). Child Care has its Child Care I course (instead of relying on courses in psychology and biology which might cover some of the same material), while the Human Development program has analogues in Human Services and in the "Management and Motivation" course in a business program. There are differences between these courses, certainly; but there is enough similarity to raise the question of why they aren't more integrated.

Another side to the lack of coherence between departments of the school is that in many cases the skills or knowledge taught in the general-function courses (and which are supposedly relevant to the other programs in the college) are systematically ignored in the general-specific and specific-function courses. That is, the localization of "skills"--such as writing or reading--in one department of the college (such as English or Developmental Studies) seems to induce administrators and instructors in other programs of the college to ignore these skills altogether. Very rarely did we observe or even hear second-hand of instructors outside the developmental studies program paying attention to the difficulty of their texts or working with their students on comprehending the texts. There was also lack of attention given by instructors--even in content courses were the students were required to produce numerous written products--to students' writing. It is almost unheard of for an instructor outside the English department or the developmental studies department to work with a student on his writing skills (or even to mark or comment on the writing in evaluating written assignments).

The significance of this situation is hard to gauge. We would suggest that students "learn" (in the cognitive sense) something about reading, writing and math in any course that uses or requires those skills--even if, by the instructors ignoring or placing little emphasis on them--that these skills are not very important. That is, an absence of emphasis or attention to reading and writing, may send a message to students about reading and writing: that they are not relevant or important.

STUDENT STRATEGIES

The strategies used by students to meet course literacy demands reflect, to a large extent, the type (or the variety of types) of knowledge that the course is to transmit. While it is probably unusual to find a course or class concerned exclusively with any one of these types of knowledge, from those that especially leaned in one direction or another we could make some statements about the accompanying strategies.

In courses concerned primarily with "reified" knowledge--the knowledge defined by textbooks and experts in the field and abstracted from practical use, students were more inclined to ask fewer questions than in classes discussing more practical knowledge, to limit reading to study guides prepared by the instructor and notes copied from the blackboard. Because the exams given in these courses demanded objective responses--definitions, categorizations, short-answer, identifications, and so forth--that require memorization of categories and definitions of terms--students relied upon instructor-prepared notes and blackboard instruction. The "advance organizers" or study guides were more typically used to study for exams than to prepare for classroom activities or to keep up with the assignments; they were clues to the students as to the exact terms and concepts that they would be expected to reproduce on exams. Blackboard instruction included information that would also appear on the examinations, and students restricted themselves to memorizing these instructor-prepared notes and blackboard notations, in lieu of reading text.

Students did not appear to ignore reading the text in order to take the route of least effort in acquiring knowledge to pass the course; rather, they appeared to ignore those texts that (1) were very difficult to read and had numerous technical terms, (2) had content that was not included on the exams, (3) had content that did not relate to the practical demands of their work or the class itself. Finally, they chose not to read the text when all of the information they needed was covered in the lecture which was further clarified by hand-outs and blackboard information. Students did appear to read texts (often over the same or similar material covered in the course text) that were (1) easier to read and (2) more interesting (in students' opinions). Therefore, the style and approach taken to the text information was a major factor in whether or not students read the textbook.

There was another factor that determined whether or not students were willing to read the text. Frequently, instructors attempted to adapt the course content to the students' limited experience and/or time for assimilating the concepts and terms. Often the translation/interpretaion was not an accurate simplification, but rather a slightly different interpretation of the concepts as presented in the course text. Therefore, students who did read the text found "mis-matches" between the definitions in their reading and classroom notes; the final result, then, was that students ignored the text and concentrated on instructor-produced materials (see Child Care).

Instructors who visualized the intent of a course as providing a "sensitizing" function were more inclined to select texts that were more general, with less tightly-structured and less rigid theoretical style than did those instructors who saw their courses as "theory" development and who chose texts more rigidly laid out, more thorough in presentation, and with prose styles more peculiar to "scientific" works. The final result was that students were more inclined to learn the disjointed pieces of information in lieu of reading the textbook--given that the text material appeared irrelevant to work or school demands and, further, was difficult to relate to that material provided in the classroom activities.

In courses where the content was "reified", student questions were more frequently "questions on content"--requests for clarification or elaboration of some point the instructor was making. In addition, the instructor's questions were typically "requests for demonstration"--students were asked for definitions of particular terms or concepts. They would then refer back to their notes (taken earlier from the board or included on instructor-prepared hand-outs) and recite the definition aloud to the instructor. There were some, albeit infrequent, student questions that reflected attempts to relate the course content to practical concerns (see Child Care and Math). Further, in those courses where the knowledge was of a more "sensitizing" or "recipe" nature (thus, it was determined to be more practical for or relevant to work or other demands), questions occurred more frequently and were aimed less at clarification and more at explanation of relationships ("why" questions).

Students who "learned" that material written on the blackboard represented the material on the exams were more inclined to copy everything from the board but took no notes on anything else that the instructor said--e.g., when he made attempts to provide practical examples with anecdotes, attempts to "expand" materials by enlarging topical issues to previously-covered information. The students assumed, correctly, that if a topic was not important enough to include on a study sheet or write on the board that it was not going to appear anywhere else--e.g., on the examination.

When instructors attempted to translate or simplify the content in the text, their uses of study sheets and blackboard work (as well as exams) all functioned to reify the concepts and terms to the extent that the concepts were so isolated, their relationship to other concepts so obscured that often the translation no longer accurately reflected the appropriate terms and concepts (as addressed in the text; see Child Care) that students were faced with a dilemma--reading the text could confuse them when it came time to respond to exam questions.

The result of such a situation was that students' most "rational" choice was to ignore, or give relatively less attention to, the knowledge in the text, and to concentrate on performing the appropriate behaviors that would earn them a good grade. With limited amount of time to allocate to the course and with text knowledge irrelevant to the practice of their vocation or to other school demands, and with the ncessity of getting a good grade, students would fall back upon doing no more than the instructor demonstrated was necessary.

In courses transmitting more "sensitizing" or "recipe" knowledge, students preferred blackboard instruction that was organized and detailed with direct references made to page numbers and to specific problems or concepts in the text. These instructor strategies improved students' abilities to use their notes more profitably. The better students appeared to have overcome difficulties in other courses with disorganized notes; however, poorer students were unable to retrieve enough information from the visual directives or to organize it so efficiently that text reading and problem solutions would be facilitated (see Accounting). The organization and amount of material written on the board were decided factors in students' successful negotiation of course work.

Students took few notes from instructors who used the lecture approach with infrequent use of the blackboard. They typically copied all notations and work displayed there, however, and always made note of information that instructors identified as "important" during the lecture. Student strategies for using class notes to study for future class activities and for exams were supported by instructors who noted all important points on the board, in an organized fashion, and who left the information there long enough that students could copy all of it and identify omitted material. Further, instructor's reviewing, orally, all material on the board prior to erasing it gave students time to edit their notes, check for questions, and so on. The literacy demands for students who had to decipher unorganized or ill-prepared notes were obviously greater than for those with more organized sets.

Instructors who used the blackboard to work problems and failed to include all of the problem steps required that students ask questions about the missing information: however, students were more likely to ask these questions of each other, especially if the information considered to be "old"--that is, if the student felt that the information contained in the omissions was knowledge that "everyone already had," he was more inclined to ask someone other than the instructor or no one at all (see Math and Accounting).

Few students took advantage of office hours to see instructors about problems with coursework. While some instructors were more successful in getting students to their offices than were others, the tendency was that few students ever went at all. Furthermore, the tutoring lab was more frequently visited by students who needed more immediate help with specific assignments than those who were inclined to seek long-term tutoring support.

Finally, students chose to remedy their own problems with instructor style--e.g., unorganized or infrequent use of the blackboard--or literacy demands--teacher expectations (requirements) that students learn material that can only be found in the text--by withdrawing from the course and enrolling the next (or another) semester with another instructor (see Attrition and Accounting).

STUDENT EXPECTATIONS

Students enter college with varying expectations for courses and programs (see "Student Careers"), but they all expect to receive a grade for their efforts. So while the knowledge transmitted in these courses was important to the students, it apparently was important by degree--i.e., the more relevant and interesting the content, the more likely the student to value getting more than a grade from the course. (We suggest that students in specific-function courses are more likely to want more than a grade while students in general-function courses may be more inclined to work specifically for the grade.) Further, the expectation of receiving a grade for their efforts required students to attempt to meet at least the minimum literacy demands (see "Literacy Demands" in this chapter).

Students expected the colleges to provide them with the training to obtain a better job or improve their chances for advancement in their present positions. They seemed inclined to weight the questions they had about the relevance of what they were learning to their work demands against the importance of gaining the credential (more immediately, the earning of a passing grade) and chose to participate on a higher level in those courses that provided that relevance (see Child Care).

When students did not do well in college, they were inclined to blame the institution for their failure, but the blame was typically particularistic--that is, they tended to accuse a particular instructor or the management or demands of a particular course for their failure. The institution itself was held to blame, by some, for not having "done more" for them--e.g., restricting them from enrolling in classes for which they were not prepared or placing them in difficult courses that required them to learn and manipulate materials that they discovered were not required again.

Students with definite plans for following a major program of study and who did see counselors appeared to expect to find out about the courses that they needed to take to accomplish their degree plans and acquire their skills. But the more uncertain they were about their goals (occupational or educational), the more they seemed to expect of the counseling function.

Many students who entered the college expected to enroll with a full load--or at least a heavy schedule--of coursework and be employed simultaneously. Their expectations were typically unrealistic, in view of the combined time commitments, and the results were obvious in heavy withdrawals and failing grades (see Attrition).

Many students approached the college tentatively and apprehensively and experimentally. They were primarily uncertain about what to expect from the experience, but it appeared that no matter what their present experiences, their general overall expectation--if they had come to college with it--was to continue in higher education.

CHAPTER III
IMPLICATIONS AND RECOMMENDATIONS

This chapter provides a broad-brush view of implications of our research findings and related recommendations. However, it is imperative that the reader refer to the individual chapters in Part II of this report for the more detailed and particularistic discussions. For our purposes here, however, we choose to limit remarks to those broad implications that we deemed most far-reaching.

There is one over-riding implication of this study: if systematic literacy development is to be a major goal of the community college, there must be a concerted and organized administrative and instructional effort to effect it. Without such calculated effort by the college, there will be instructional strategies--e.g., use of low-level cognitive objectives--that circumvent it and disjunctions within the organization--e.g., poor intra- and inter-program coherence--that lend themselves to dismantling it. To avoid being a part of the problem--that of perpetuating student skill deficiencies--community colleges must get serious about instituting policies that will inhibit, retard, eradicate the situation and circumstances that contribute to the maintenance or to the demise of the status quo in the inabilities of students to read, write, figure, and, ultimately, to think and problem solve.

Literacy Demands

Reading and writing are not required across the curriculum; there is little emphasis placed on reading and writing as purposeful activities, little attention paid to reading levels of students (except in reading skill programs), infrequent work with students in comprehending text, and little attention to the production of larger pieces of purposeful writing. The reduction of reading and writing tasks to those performative activities that extract information from context and that require no demonstration of synthesis/comprehension of larger issues or ideas cannot be construed as ever improving or developing students' abilities to read and write. (See Child Care, Reading, Writing, and Math chapters.) It is recommended that institutions do not allow program developers to assume that (1) other instructors of other skill/content areas are responsible for or are providing for the development of reading and writing skills, (2) that students will somehow "magically" develop these abilities without instruction in doing so, or (3) that students will be inclined or motivated to develop this skill level beyond what is expected or required. Students, by and large, as do most individuals, learn to attend to those activities that are most valued (by demonstration) by those they are attempting to please (when the reward is of high priority). In a "graded" situation, the instructor-directed activity becomes important to the student; if the activity reduces use of the language to lower cognitive levels, then the "learning" implication--that reading and writing are not important as activities within themselves--is unintended, but of serious consequences for literacy development.

If reading and writing are important activities, the institution must provide policies, procedures, the programmatic structure to facilitate the students' developing them. Furthermore, the college should design mechanisms whereby the skills taught in the language and math courses are those demanded in subsequent courses and/or in general life skills. Skills cannot be taught independent of their use (see Reading and Math); students cannot be expected to develop skills as "tools" for negotiating other courses unless these activities are soon experienced. There must be an institutional commitment that all instructors require practical reading and writing assignments in their classes at a level that promotes independent student learning--e.g., daily practice in sentence or short paragraph responses to discussions or questions, frequent testing that includes synthesizing responses, the use of more word problems in math and career classes, testing for content that is not limited to that covered in oral communication and copying from the board, and so forth.

The creation of dependent learners through continuation of "directed" instructional practices--that is, traditional lectures, structuring of reading and writing assignments that reduce the purposeful nature of these activities--reduces the chances that students will ever question what and why they are learning specific content or skills (see chapters on Reading, Math, Child Care). Outside of the academic environment, students are not so directed; they are, rather, in a posture of having to make more important decisions than more traditional forms of instruction are teaching them to make (see Cross, 1981). There are implications that the use of a text that removes content from familiar frameworks or from practical situations encourages students to engage in learning disjointed or abbreviated pieces of information and demonstrating that learning on exams. Further, there are indications that requiring students to learn material for which they have no strong background or adequate time to achieve in-depth understanding (see Child Care)tends to remove the students from text-reading altogether and directs them to copy work and low-level cognitive tasks--e.g., objective questions, short identification responses. There are no theoretical supports for teaching content in discrete and disjointed units; and when it occurs, other than removing students from a more personal and general frame of reference, which would support new learning, and removing supports of interest and utility, it serves to form the basis for both instruction and evaluation that depends primarily upon rote learning and reliance upon outside direction. At best, such strategies teach and assess low-level cognitive learning.

There are implications that educational theory is pragmatically altered as it is put into instructional practice. The theories upon which the individualization of instruction are based are situationally-adapted to legitimize sometimes strikingly different strategies and practices. That is, in the name of providing individualized instruction, instructors may move content about and apply strategies for teaching it that do not accurately reflect the intent of individualization concepts. There are no clear procedures for implementing the design of individualized instruction in existing school organizations nor agreement for determining whether or not they have been implemented (see Reading chapter).

Theory developed in discipline training courses and modeling of one's former teachers' behaviors may be more powerful predictors of an individual instructor's classroom behaviors than are the particulars of the student populations (see chapters on Reading, Math, and Child Care). That is, no matter what instructors appear to know about their students, instructional strategies often are generally based upon past personal experiences with teaching; even in the face of surveying for student interests and goals, the gathering of that information infrequently makes a difference in the instructional approach or curriculum structure (see Student Services). Moreover, there are implications that available texts or other products--by the same or other similarly-trained discipline specialists--that do not utilize realistic materials or approaches in the teaching of the skill or body of knowledge further serve to alter the classroom reality (see Reading). (An additional feature of the training and discipline preparation issue is the lack of attention given to teaching students whose first-language is not English; hence, the creation of texts designed to address the concerns of this group are rare, as are instructional strategies for addressing their problems.)

Organization of Instruction and Student Careers

The organization of instruction (knowledge and skills) into disjointed components within the institution is counterproductive to the establishment of coherent ties in the educational system. The theory that general-function courses (recommended or required) for curriculum programs are so because they provide grounding (information, skills) for a larger body of courses breaks down in actual practice (see English, Reading, Math). The autonomy of separate departments, the organization of general-function courses, may weaken the coherence between the very courses (general and specific) that they are designed to support; skills and knowledge taught in general-function courses are frequently and systematically ignored (may be irrelevant) in specific-function courses. The college, therefore, should have clear directives, and clear evidence, that basic skills courses do, in fact, contribute to the programs of study for which they are intended or required; we would strongly recommend allocation of funds for evaluating whether or not they make that contribution.

From our findings about the questionable relationships between theory courses and vocational demands (see Child Care), between Freshman English and other program majors (see Office Occupations), between the teaching of math and relationships to other programs (see Math), and between the teaching of reading skills and reading demands within the college (see Reading and other specific content area chapters), it is obvious that instructional and curricular decisions must not be made in a vacuum: one cannot talk about how to teach without first talking about what is being taught; one cannot talk about what is being taught without first talking about why (and to whom). Strong efforts to create intra-program coherence may tend to separate and segregate individual programs from the rest of the college (see Child Care, Office Occupations, English, Math). The effect of these "isolationist practices" can have profound effects upon student careers as students must take courses from different administrative units that have remained disparate entities and thus move through a curriculum with no built-in predicatibility based upon content and application linkages, sequential literacy demands in increasing difficulty.

Individual departments and instructors must not be allowed to make decisions about courses and demands that do not "fit" an institutional plan for moving a student along a clearly-defined programmatic path--with strong assessment and placement practices, initially--to read, to write, and thus to negotiate requisite course content. Faculty should understand their position in that "chain" of sequential movement or their ability to provide service to the institution and to students in that role. Faculty cannot simply fill isolated slots for teaching particular bodies of knowledge or skills; they must fill positions within organized linkages between courses and between programs. Our findings are that the use of part-time faculty has implications for the standardization of curriculum--that large numbers of part-time faculty who are "controlled" by departmental selection of text and content may provide for strong intra-program coherence (at least that is an administrative presumption) but may contribute little to related courses or programs in the college (see English). In addition, "specialists" teaching individual courses, with departments allowing them individual control over text and content, reduces the likelihood that intra- or inter-program coherence can be achieved without special mechanisms for effecting it.

Student Careers

Registration and advisement procedures allow large numbers of students to enroll with little or no advising. Given the diversity of the student population and the small number of students who attend voluntary orientation (and assessment) procedures, many students enter the college without the knowledge of "formal" and "informal" rules of the college game. While there must be realistic considerations of student numbers as opposed to available faculty and counselors, there are possible recommendation for some alleviation and correction of this problem. For example, it is possible that department advisors could be assigned to specific students whom they would follow and continue to advise throughout the program or an overview of the chosen major (requirements, etc.) could be included in all introductory courses. Institutional efforts to familiarize the student with useful information about the ways in which the educational system works are important mechanisms for adaptation for the many students who do not comprehend the nature of the environments they are entering. This extended advising could be accomplished in the first class sessions of designated courses.

Further, because so many students use the catalog to self-advise, and in a system where the ratio of students to available counselors or advisors is either unmanageable or cumbersome at best, it is recommended that the catalog be designed to offer more specific information about courses than course content: individual courses should be categorized by instructional mode (self-paced, lecture/discussion, and so forth), reading level of text (students assessed to determine compatibility with the text), assignment types that students must negotiate, attendance policies, and so forth. In addition, specific information about prerequisites (relationships to content) and conditions of transferability and/or earned credit toward institutional degrees (certificates) should be clear. The reading level should reflect the national average and provide a general format that would allow the students to locate programs and courses easily. A list of most-typically-asked questions should be included with institution-specific responses.

General-function courses (tied to unavoidable and specific negotiation of text) may make greater demands upon students than many of them are prepared to negotiate and do not adequately reflect the level or type of literacy demands that students will encounter once they leave these courses. Typically, these courses are the first encounters students have with the college academic environment, and they have the most likelihood of penalizing students (with poor grades, negative experiences, and so on). The theory of progression through successively more difficult content and more finely-tuned skills is an ideal not met in practice. Assigning students to these courses as "safe" choices--in the event that the student is undecided about a major and the course will not be "wasted" once the major is selected--should be given institutional consideration.

Our analysis of records of students on scholastic probation and interviews with developmental students suggest that assessment does not adequately predict what will happen to the student in the institution. There are at least four possible implications: students do not take advice based upon these assessments and choose to continue in originally-selected courses and ignore developmental work, the assessment instruments do not adequately measure what students can do, students who made poor scores on assessment were able to complete courses without using these basic skills, or the developmental sequence did not provide the skills students needed.

Given that assessment and that student decisions to enter developmental programs are voluntary and that significant numbers of students are not assessed at all imply that the assessment effort is not a high institutional priority; as well, only the students who already perceive some need to strengthen skill deficiencies will choose to enroll in these programs. We recommend that assessment be required of all students entering courses where literacy is a prerequisite and conducted before students are permitted to register for courses where those skills are required. Further, the data should be used to make curriculum decisions (e.g., about text selection) and to plan teaching strategies (e.g., teach text negotiation).

To improve the likelihood that students will respond to assessment advice, the institution should know (and be able to document) what the results of that assessment could mean for a given student within that institution: that is, the college should know what actual literacy demands are for students in all curriculum offerings and be able to document them. By allocating funds to the evaluation of developmental programs (i.e., were students able to negotiate subsequent courses?), institutions should have follow-up data about (1) students who entered developmental courses with similar assessment scores and then did well in subsequent courses, (2) students who made similar scores, did not enter developmental courses, and performed poorly in specific courses. The data could be an effective "counter" to student protestations about entering developmental sequences, not to ignore the institutional data base it would provide for evaluation of developmental program efforts. Further studies of students who did poorly on assessment and successfully completed originally-selected courses without developmental support would produce valuable evaluative data for course/program revisions. Finally, studies of students who did well on assessment but did not successfully negotiate selected courses could produce additional data about student career variables. Thus, it is recommended that professional decisions to advise, assess, and predict be tied to specific information about students and to known institutional demands.

Students are often caught in time frames that they cannot negotiate (see Attrition), given extracurricular demands or their inability to negotiate the content and withdraw or are dropped from courses. It stands to reason that diverse student populations cannot be accommodated without some reasonable flexibility in the traditional time frames for work completion.

Furthermore, the diverse student population may be better served by less strict adherence to more traditional approaches to instruction and evaluation. Many of those who are now coming to community colleges, many of whom have been underrepresented in "organized learning," must be met with immediate, tangible reward for attendance (Cross, 1981; Roueche, 1980; Anderson and Darkenwald, 1979). If they come expecting do poorly in the academic environment (Bishier, 1973; Rubenson, 1977, as found in Cross, 1981), they must be met with non-threatening, highly-integrated curriculum in order that they can collect enough rewards to at least begin the process of becoming acclimated to the community college environment (Cross, 1981: 136).

Our strong recommendation is, as previously mentioned, that time to develop skills prior to enrolling in courses that demand them be allowed and strongly encouraged by the entire institution; that is, it should not be the sole responsibility of the developmental department to provide that support. Beyond that recommendation, we urge for alternative time frames for course completion both within and beyond the semester's length--e.g., recycling procedures for moving students through previously-unlearned materials or troublesome skills. Further, conferring non-productive grades upon developmental students just beginning the college experience should institutionally-reconsidered as grades that do not carry penalty (e.g., a progress grade) but that carry obligation to complete the work successfully prior to enrolling in other courses that would demand that skill or that body of knowledge.

There are indications that some academic content areas, as well as some technical/vocational programs tend to reflect sex and/or ethnic overrepresentation (see Math. Office Occupations, Child Care, Accounting),and some ethnic groups continue to cluster in support service positions or low-status, low-paying jobs (see Child Care). No evidence exists from data that individuals are counseled into courses that train students for these occupations; student personal experiences and/or prior working experiences appear to dictate those choices and suggest improved counseling to direct these students into more non-traditional career paths. There are further implications that increasing enrollments of minority groups in community colleges may be more than a function of the open-door admissions policies and increasingly a function of programmatic offerings for upgrading of skills in vocations (in which they are already employed) that previously had little or no training or certification requirements.

Student Strategies

While the catalog includes references to "two-year" programs and the advising procedure often includes reference to "two-year" degree plans or "one-year" certificate programs, most community college students (over 70% in this study) attended classes part-time and cannot (will not) possibly complete their studies in two years. Therefore, it is counter-intuitive to consider students who do not get degrees in that time period to be "failures" or "drop-outs" along the way. (The investigation of student career paths provided this study with data about why students drop out--for varying periods of time. Through interviews, students acknowledged pressure from these assumptions about time frames for program completion; however, the assumptions typically provided only a slight sense of anxiety about delays in progress toward goal achievement, and not a sense of failure to meet school demands.) While students do not appear to be adversely affected by the oral or written communication about program time frames, realistic assessment of the student population suggests that including these references in the college catalog or in general discussion should be discontinued.

Further, we hypothesized from student record data and discovered in interview data (see Accounting) that students used specific strategies to "shop" for particular instructor styles and dropped courses that required too much time to negotiate successfully. The implications are that institutions will continue to record vast numbers of W's in their courses. We suggest that instructional strategies which appear to attract the most numbers of students who then successfully negotiate courses (a variety of teaching tools, use of blackboard instruction to support text reading, text-directing activities, clear evaluative criteria) (see Accounting and Child Care) be studied. Further, we recommend that students not be allowed to enter more courses than their extracurricular time commitments will allow them to pass (further discussion in the last sections of this chapter).

Institutional Consequences

This study investigated the interaction between student and college, looking at literacy development from both institutional and individual student perspectives. We acknowledge our tendencies to focus upon the consequences for students in this interaction, often to an exclusion of the consequences for the institution in its attempts to serve the diverse student population.

Community colleges accepted the challenge of open access to students in the colleges' early, most formative years. Colleges must now acknowledge that there are real institutional consequences in attending to such student diversity. In times of dwindling resources, not to ignore the times when their most vocal critics are chiding them for seemingly attempting to be all things to all people, community colleges must decide to do those things that they do best. Obviously, access does not ensure success; and the blame for the fact that many students do not make it through the curriculum cannot be laid entirely at the feet of the college and its instructors. The wide range of abilities that these students bring to the college may impact dramatically the literacy demands that instructors make of students--i.e., what they feel is possible in the face of this diversity. (For example, we hypothesize that "translating" the text or limiting written responses on exams to lower-level cognitive activities or requiring few compositions may be a reaction to what seems to be an otherwise unmanageable situation.) Obviously, the student characteristics bring critical consequences to institutions.

It is suggested, however, that the college can make several curricular decisions that would establish some guidelines whereby some of these consequences could be acknowledged and dealt with in a coherent, unified manner. For example, students bring expectations to the community college that must be professionally addressed. Many students arrive expecting and needing to work and attend college at the same time. The college must refuse to allow--without a trial period in which the student proves that he can successfully negotiate a reasonable number of credit hours--students to register for more credit hours than outside commitments would allow them to pass. Outside work commitments and family responsibilities are realities for today's students; however, the college need not allow these commitments to determine how it approaches curriculum in the classroom. Colleges should consider these extracurricular commitments in planning with the student for a level of commitment to college work that the student will be allowed to make.

Students in need of reading, writing, and math skill development should not be allowed into regular classrooms where instructors then are placed into the untenable position of having to deal with this diversity--to do so is to place both the instructor and the student into impossible positions. By the same token, efforts to improve those skills must be tied to institutional knowns--that is, what the institution can prove the student must be able to do to be successful there. With the wide diversity altered somewhat by improved developmental efforts, instructors would then be capable of requiring the higher-level cognitive tasks that are the hallmarks of sound educational practice. With institutional documentation that those practices are indeed ensconced in college classrooms, the developmental sequences can be targeted appropriately.

The identification of student expectations upon entering the college is important, but the community college must limit the choices to what is possible--both for the student and the college. It must accommodate only the services that it can best accomplish and seek good plans for students by supporting student planning efforts. The rewards for both institution and student are obvious. Cross (1981) comments that students do not always know what they really want until they see it; the community college can assist in providing that "vision."

Articulation Agreements

Numbers of community college students are "dropping in" to take a course or two required for their programs at senior institutions. Others are enrolling to complete the first 30-60 hours of a four-year degree. In these situations, articulation agreements between community and senior colleges are extremely important. Findings from our study (see Accounting) indicate that articulation agreements must be carefully drawn to avoid students' taking courses that do not transfer, that do not cover equivalent content at the senior institution, and so forth. When senior colleges are capping enrollment, they have everything to gain by turning the preparation sequences over to the community colleges; when they are not, it is imperative that community colleges make it more attractive than ever for students to enroll in their preparation sequences. It is in the best interests of students that colleges and receiving institutions delineate clearly the terms under which community college student coursework will be accepted. Our research did not determine whether or not student performance after a semester in residence at the receiving institutions is a factor in the acceptance of these courses in lieu of in-house required courses. Implications were, however, that there are significant variations between community college and senior institutions' preparation sequences of some transfer programs of study (see Accounting).

In addition, there should be written agreements--with provisions for informing enrolling students--as to the senior college policies for interpreting course grades transferred from the community college that affect student GPA and, therefore, student eligibility for acceptance. For example, we discovered that the NC grade, when transferred to the senior institution, became an F on the student's transcript (note: the NC grade is no longer used at the research sites although it was still present on some students' transcripts).

Non-productive Grade Standardization

Non-productive grades (W, F, and I) are not standard across the curriculum (see Attrition and various chapters including discussions of attendance policies). For example, a W could be instructor-initiated (the student has not achieved a particular set of objectives by schedule date or has been absent beyond an acceptable limit) or student-initiated (the student elects to drop the course and may be following a student strategy of "shopping" for a more suitable instructor or may be failing the course and has no intention of continuing). Similarly, the F grade can be assigned to non-attendance and thus incomplete work, or generally failing performance, either inadequate amount of work or unacceptable level. Furthermore, there are I grades that become F grades after varying lengths of time. Clearer designations for describing why non-productive grades have been recorded would provide a sharper picture of causes of attrition and formative/summative program evaluation.

Student Data Bases

The community college should develop strategies for improving follow-up research with students who persist and those who do not, as well as for students who cannot be classified as more than "drop-in's" (taking a course or two for fun or who are working toward an eventual degree--too far into the future to seriously compute). Because institutional resources (e.g., computer time) and available funds must be allocated for priorities (for keeping the institution functioning on a daily basis) and may be scarce, there are recommendations that small-scale program, or course, follow-up procedures might reduce the size of the project and, further, target the questions to specific programmatic and classroom issues--e.g., what content learned in this class helped you the most, how, and why?

There is value to expanding the student data base. The idea of investigating students who have yet to leave the institution but who are dangerously close to doing so (with subsequent follow-up of those who persist and those who do not) could supply some provocative answers for the creators of new programs, to the reconstructionists of existing programs. In addition, there is value to contributing to the literature/state of the art of identifying the defining characteristics of who (and what) drop-outs from the community college really are and what they say about the services provided.

Staff Development

Finally, colleges will not have the luxury of dictating teacher preparation policy to state funding and accrediting agencies; they must, then, be serious about effecting in-house policies and then providing professional development activities that assist instructors in re-thinking and re-designing their courses or programs along the lines suggested by the findings of this study--e.g., reading and writing at higher cognitive levels across the curriculum, attending to course and program linkages, extending course times vertically and horizontally, and so forth.

State Policies: Attrition Studies

There is no standardized definition of "drop-out" student by which institutions can be assessed by any state agency or by which they can assess their own services. Therefore, these agencies have no acceptable yardstick by which they can measure what "role" a community college plays for students and how well it is played. A procedure for determining who "attrits," why, and how would assist program developers and evaluators with valuable information for future planning.

Teacher Preparation

State certification should require teacher preparation sequences to be reconfigured, redesigned to accommodate the issues that have been raised in this study. (1) There should be development of strategies and materials for the teaching of students with non-English first-language dominance who enter reading and writing skills programs, (2) emphasis upon building linkages between teaching of skills and content and their applications to college and everyday skill demands, (3) training in instructional strategies that promote and effectively evaluate higher-level cognitive strategies, (4) development of strategies for tying assessment to instruction, and (5) creation of strategies for eliminating dependence upon texts that do not meet the realistic expectations that are made of students both in and out of the college environment.

No longer can the question be whether or not developmental programs should be funded, but rather how they can be designed to more effectively move students through the developmental sequences (in reasonable time frames) and have the preparation effort pay off for both students and institutions. To consider the problem a "non-problem" at the college level because the effort has, theoretically, been made before at taxpayers' expense is avoiding the larger issue--the alternatives of not offering the developmental sequences. Looking backward toward the possible roots of the literacy problem--e.g., public school preparation--must be effected; but to do so without applying effort to the symptoms of the larger and more immediate problem is side-stepping responsibility for tackling it.

Future Research

Future studies should investigate in more detail the effect that part-time instruction has on a community college (see "Organization of Instruction"). The numbers of part-time faculty within an institution, their input to the curriculum process, their control over what they may teach in the classroom (or their lack of it), their general knowledge of the community college population are important issues that were only tangentially approached in this study.

We have discussed only superficially some of the links between the college's technical/vocational programs and business and industry. Do students get the proper training in the community college that will allow them to move directly from the college into positions in vocational areas, or will the industry feel compelled to provide additional training to fill the gaps between training and the work place? While the state mandates the selection and activity of advisory boards to vocational/technical programs (and we found that they use them), there should be efforts to conduct further studies of the actual relationships between what is taught and what is demanded.

EPILOGUE

It is appropriate that community colleges become the target of more social research; they have made their impacts on American higher education, and they are here to stay--albeit in ever-changing roles as the nature of their populations change. They continue to attract and serve individuals who have heretofore been out of the higher educational mainstream and will be again if the efforts in these institutions are unsuccessful. As community colleges watch, four-year colleges and universities have stepped up efforts to actively recruit students in numerous academic and vocational areas that have been in the more specialized populations of the community college. Community colleges, then, are in the position to develop programs and environments that can continue to attract and successfully serve these populations as well as those populations more traditionally-prepared and oriented.

While declining literacy skills is old news, the unsettling features of that news have become more pronounced as programs to remediate/develop those skills frequently fail and miss the mark or evidence continues to surface that most students are not required to read and write in college. The new news then is of institutions that make in-roads on the problem by refusing to look the other way when painful decisions/actions must be made for establishing skill development efforts to combat the literacy problem, making real literacy demands on students and providing meaningful support and direction by which students can, in reality, meet them.

It is community colleges that are facing the most dramatic literacy problems--that is, it is within these colleges that the realities of the weaknesses in reading, writing, and figuring are most apparent because the representatives of these deficiencies enroll in great numbers. But because it is a pervasive problem--albeit a rather new problem at some levels (within the more traditional college student population) and merely an old problem at others (e.g., with borderline high school graduates, high school drop-outs)--and because their community service philosophy (and perhaps their future existence) demands action to remedy it, the community college is in a prime position--not to mention an ethical one--to investigate what happens on campus and determine if in reality the crucial generic goal of education--to make learners literate--is being achieved.

A thoughtful consideration of the college role as literacy developer needs no research evidence to support it: knowing how to use language--reading, writing, figuring, thinking, problem-solving--is crucial in today's world. It is a disservice to students to suggest that reading and writing are not important abilities by failing to require that they demonstrate them or by providing "alternatives" for accessing information that circumvent reading and writing processes (this is not to say that alternative approaches to presenting information should be avoided, rather that to use them to the exclusion of reading and writing activities is unconscionable) or dilute them. There are those who would pose that the educational experience does not significantly affect what happens to people--that luck and chance are more responsible for positions that individuals finally assume, that upward mobility is not dependent upon what one is able to do with language. We suggest that while luck and chance may have become visible variables that differentiate between those who made varying degrees of change in position or state, the variable of literacy, if distinctions between ability or lack of it in dealing with language were used in a future study, would be the pivotal point at which individuals could be absolutely denied access to or restricted from entering certain areas of work or study. (There are numerous studies of the effects of motivation upon student abilities; if that motivation is used to move the student toward improving these skills, all is well. If that motivation is construed to be the substitute for demonstrable literacy skills, the student will persist only in environments where literacy doesn't matter!) There are those who would say that students/individuals can "get by" with few reading and writing skills in real life and that because they do not need to read and write well (presently) to make it in college, money spent on literacy programs is wasted. However, the point is lost with these arguments. The point is the desired outcome: would society prefer to turn itself over to individuals who cannot use the language, who indeed cannot think (in the language)? Is it sufficient to say that if one doesn't need to read and write, then one should not feel compelled to learn or instructors to teach use of the language? If students must not be able to read and write well to be successful in college, what then? The more pervasive, dramatic question becomes, therefore, not what is but what should and must be!

REFERENCES

Anderson, R. E. and Darkenwald, G. G. PATIENCE AND PERSISTENCE IN AMERICAN ADULT EDUCATION. New York: College Board, 1979.

Boshier, R. "Educational Participation and Dropout: A Theoretical Model," ADULT EDUCATION, 1973, 23 (4), 255-282.

Cross, K. Patricia. ADULTS AS LEARNERS. San Francisco: Jossey-Bass Publishers, 1981.

Roueche, John E. and Mink, Oscar G. HOLISTIC LITERACY IN COLLEGE TEACHING. New York: Media Systems, 1980.

Rubenson, K. "Participation in Recurrent Education: A Research Review." Paper presented at meeting of National Delegates on Developments in Recurrent Education. Paris, March, 1977 (as found in Cross, 1981).

Ryle, J., and Geiselman, L. A. "Non-traditional Opportunities and Programs," in K. P. Cross, J. R. Valley, and Associates, PLANNING NON-TRADITIONAL PROGRAMS: AN ANALYSIS OF THE ISSUES FOR POSTSECONDARY EDUCATION. San Francisco: Jossey Bass Publishers, 1974.

Overview to Part II

The chapters in this section of the report are not intended to provide a synthesis of our findings; rather, they provide the data base from which the particularistic findings and final synthesis are drawn in Part I.

Chapter I provides a discussion of the rationale and the selection criteria by which courses, programs, and other areas of the research sites were chosen for this study. The following chapters represent discrete units of description and anaylsis of these individual investigations; the foci, the treatment of the data, the organization of the reports vary from chapter to chapter, reflecting the realities of the limitations of this study (discussed in detail in the Methodology, Part I, and briefly at the conclusion of this chapter overview). The majority of the chapters include: data sources, context of the study (moving from a broad contextual framework to the narrow focus of the particular investigation), descriptive data, discussion and analysis.

Chapter II is an in-depth description and analysis of the student services program. Since student services are not located in any program or course at the respective campuses and since they typically serve as the initial contact between the college and the student, we chose to place this chapter at the beginning of this major portion of the report. Chapter III, similarly, provides a description and analysis of a global issue--attrition--as viewed from the perspective of student careers. The following chapters are targeted to specific courses and programs.

Chapter IV provides a broad overview of developmental programs and then targets discussion to a research site's assessment of reading skills and to particularistic arguments about reading instruction. Chapter V follows with a description of a procedure for the assessment of math skills, a description and analysis of two approaches to their instruction, and a discussion of a larger research issue of math anxiety.

Chapter VI is a trilogy: (1) a brief overview of research sites' assessment and teaching of writing skills, (2) an in-depth study of Freshman English and related tutoring issues, and (3) selected issues from Technical Writing. This chapter completes the investigation of the developmental program, then moves the reader into a study of a major transfer course in the academic area, and finally offers a brief discussion of a programmatically-related transfer course required in selected vocational programs. From these course descriptions, we turn to programs.

Chapter VII is a study of a vocational program in the clerical area--Office Occupations; Chapter VIII is a study of a vocational program within the service area--Child Care. They focus upon arguments about literacy as a job skill and purposes and motivations in the use of text, respectively; further, they both address relationships between work and preparation sequences at the college level. Chapter IX describes Accounting, a program from a semi-managerial (vocational) area and focuses upon classroom strategies, as well as linkages to senior institutions. Finally, Chapter X provides an overview of an institutional support/ service area--the Learning Resources Center, and concludes this section of the report.

Limitations of the Study

We refer the reader to the Methodology and the final section, Limitations of the Study, for a more complete discussion of acknowledged limitations. For our purposes here, however, we wish to note that the perspectives brought to each chapter are reflections of the background of the individual researchers. There were broad research questions that initially guided our research; while these questions became more targeted and specific as the research progressed, the foci of the individual discussions and the emphases brought to them are clearly reflections of the multidisciplinary team employed to conduct the research.

Finally, it was not our charge or intent to evaluate any course, program, or area of the research sites. Rather, it was to describe the interaction of purposes and motivations (of administrators, instructors, students) in this organizational context as this interaction affected literacy development. It was impossible to describe and to conduct a process analysis without taking what can be interpreted as an evaluative stance. It is important that the reader consider the variables of the researchers' backgrounds and the intents to describe and conduct process analysis when reading the following chapters.

CHAPTER I
THE SELECTION OF LOCI FOR STUDY IN THE COLLEGE

In the discussion of the methodology we noted the large amount of time and effort that must be expended in the qualitative study of school courses and programs. In using such intensive field methods, however, one is necessarily limited in the extent to which the methods can be used. That is, we had to select a relatively small number of courses, programs, and other areas of the college out of a rather large universe of possible loci for investigation. Bearing in mind the research questions we posed ourselves, we developed the following criteria for the selection of areas of study: (1) the relation of the aim or content of a course or program to literacy development: does the course specifically take for its aim the development of reading, writing or math skills in its pupils? Does the course require the extensive use of written language for its successful negotiation by students? (2) the size of the student population: does the course or program reach a significantly large population of students? For example, the Journalism program of the college is highly focused on literacy skills, yet it serves only a small group of students from a relatively homogeneous background (e.g., middle-class Anglo females). (3) the size of the minority student population: does the course or program provide a service to a significantly large population of minority students? Is there a high concentration of minority students in the program? (4) the effects on "student career": are there services or processes, such as assessment, counseling and placement which are crucial to the students' negotiation of a "school career." If so, these services and processes must be studied.

The application of these criteria was by no means mechanical and there were a number of false starts and strategic retreats. In the following section we provide a general overview of the characteristics of the student body of the college, and we try to explain how different factors entered into our decisions to investigate particular courses, programs, or services of the college.

STUDENT BODY COMPOSITION, 1976-1980

Enrollment data on the student body is hard to get, and what is available is fragmentary and inconsistent. For example, in the packet of fall, 1980, college statistics, college-credit enrollment is given as 12,829 on one page, 12,579 on another, 12,584 on another, and 12,266 on still another--and in a report from another department, enrollment is given as 12,193. Bearing such problems in mind, we have tried to summarize the college's enrollment changes over the period for which any records are available, concentrating especially on the period of our study: 1978-1980.

Total Enrollment in the College

The college, in order to emphasize its dramatic growth, collapses enrollment from all programs into one figure when comparing enrollments over the college's history. Here is the total enrollment and college-credit enrollment for 1976-1980:

	1976	1977	1978	1979	1980
Total Enrollment	8,591	11,539	13,481	16,078	18,871
Credit Programs	6,519	7,843	9,124	10,801	12,165
(% of total)	75.8%	67.9%	57.6%	67.1%	64.4%

The large jump between 1976 and 1977, then, represents in a significant part, growth in the non-credit sector of the college (from 24.2% of total enrollment to 32.1%). This report is concerned exclusively with the college-credit sector.

Rate of Growth	1976-1977	1977-1978	1978-1979	1979-1980
Total College	34.3%	16.8%	19.3%	17.4%
Credit Enrollment	20.3%	16.3%	18.3%	12.6%

Breakdowns of this data before 1978 are almost non-existent, so we can only hypothesize about these rates and the trends they may represent. We know that in 1975-76 the college underwent a great expansion by adding a second regional campus to its system. The 1976-77 increase may represent an aftershock of this expansion, with the relatively smaller rates in the years thereafter representing increased demand in a non-expanding environment. The decline between 1978-79 and 1979-80 may mean that the limits of the existing facilities are being approached, but there is no way of evaluating this until the fall 1981 figures become available.

Enrollment by Program Area and Major

We have statistics only for the period 1978-1980 for this topic:

Enrollment by Program Area	Fall 1978	Spring 1980	Fall 1980
Transfer-Arts	1640 (18.1%)	1783 (16.7%)	1644 (13.5%)
Transfer-Science	1042 (11.5%)	1362 (12.8%)	1589 (13.1%)
Vocational	3882 (42.8%)	4117 (28.6%)	4720 (38.7%)
No Major	2501 (27.6%)	3410 (31.9%	4240 (34.7%)
TOTAL	9065 (100%)	10672 (100%)	12193 (100%)

The fastest growing sector of the college is "no major." What this means is not clear. There are any number of reasons a student might not declare a major:

uncertainty/unclear goals
no intention of obtaining a degree
planning to attend only one or two courses (refresher courses, etc.)
desired major not offered

We should note that in reviewing the records of students on scholastic probation we discovered that many of the students (perhaps as many as one-fourth) who are listed as "undeclared majors" actually have definable majors in terms of the courses they take (for example, someone who is "undeclared," but enrolled only in Child Care courses may be considered a Child Care major).

The "Transfer-Arts" program area has increased very slightly and has declined as a proportion of the college (from 18.1% to 13.5%). This program includes the majors:

Art, Drama, Economics, English, French, General Studies, Government, German, History, Journalism, Music, Psychology, Radio-Television Film, Sociology, Spanish, Speech, Communications

One of these majors, General Studies accounts for over half of the enrollment in this program area (848 of 1644). It is a program for students who intend to transfer to a four-year college, and its enrollment has declined from 989 in the spring of 1980 to 848 in the fall. Most of the remaining majors in this area are quite small. We should note that several of them have high Black/Hispanic enrollments:

Economics: 37.1%
Government: 30.7%
Psychology: 31.5%
Sociology: 48.4%
Spanish: 34.5%

None of these programs were studied as programs: General Studies is too heterogeneous and the other programs are too small for our project to allocate resources for intensive study. However, one program in this area--English--contains a course required for almost all of the majors in the college: Freshman English. As a consequence of Freshman English, the English program has the largest headcount enrollment of any program in the college--and the largest faculty--while at the same time it has a very small number of majors (usually under 50). We, therefore, devoted a great deal of our resources to studying Freshman English for the following reasons: (1) it affected more students than any other single course in the college; (2) the course content--essentially writing training--is essentially related to the subject of literacy; (3) the course, therefore, represented a locus at which a particular set of literacy demands were imposed on a very large and heterogeneous group of students; (4) not only did the Freshman English course represent a barrier of literacy demands through which all students had to pass, there was also the explicit assumption that the course imparted to the students literacy skills which they would need or could use in other courses in the college.

The "Transfer-Science" program area has grown both in real numbers and as a proportion of the college over the period 1978-1980 (from 1042 to 1589, 11.5% to 13.1%). However, these figures are a little misleading. This program area includes the majors of:

Biology
Physics
Business Administration
Pre-Engineering
Chemistry
Mathematics
Geology
Physical Science

Excepting Business Administration and Pre-Engineering, all of these courses have lost enrollment in the 1978-80 period (Pre-Engineering was first offered in 1979). Of the 1589 students in this program area, 1196 are in the two majors: Business Administration or Pre-Engineering. None of the majors in this area have particularly high Black/Hispanic enrollments (e.g., Business Administration: 24.9% minority; Pre-Engineering: 14.9%. Pre-Engineering has the largest "other" enrollment of any program in the college: 20%, mostly Oriental.)

As with the majors in the "Transfer-Arts" program area, we decided against studying any of the majors in the "Transfer-Science" area as programs. With the exception of the two programs mentioned above the enrollments are quite small, with low minority enrollments. None of the programs are concerned with the teaching of literacy skills. The Business Administration program, one of the largest in the college is actually not an autonomous program at all: there are no Business Administration instructors, no Business Administration courses. It is simply a transfer business program, similar to the "vocational" program Business Management, but requiring some of the general courses needed to transfer to a four-year college (e.g., introductory Government and History courses), in addition to a slightly more rigorous business curriculum (e.g., a Business Administration major must take both Accounting I and Accounting II, a Business Management major need only take Accounting I). The Pre-Engineering major was excluded because of the unusual student body composition and the likelihood that many of the students in the program were "drop-ins" from four year colleges. As with the Business Administration program, Pre-Engineering is not an autonomous program with its own courses and instructors.

We did decide, however, to devote resources to study of selected math courses. Several factors were involved in this decision: (1) math courses are required in a wide variety of majors, both transfer and vocational; (2) instructors in these majors have expressed the opinion that their students often have poor skills in math; (3) math courses represent a significant locus at which students must process and manipulate text: we realize that most studies that profess to be concerned with "literacy" concern themselves almost exclusively with reading or writing; we submit, however, that mathematics is similar in being grounded in graphic text. Moreover, in practice, mathematics and prose text are often complexly interrelated (e.g., in "word problems").

The "vocational" program area is the most complicated of all the areas. It is the largest in terms of enrollment and contains the largest number of majors (29). The heterogeneity of these majors is greater than either of the Transfer program areas, ranging from manual trades (e.g., welding), low-status occupations in the service sector (e.g., Child Care), to relatively high status managerial or mid-management occupations (e.g., Banking, Accounting). Moreover, these majors showed extreme diversity in the characteristics of the students who selected them as majors; we look at two characteristics in particular: sex and ethnicity (percentage of Black and Hispanic students--these are the college's categories).

Sex

While the college as a whole and the Vocational program area as a whole (all 29 majors) show an almost even distribution of males and females (for the vocational program area the figures are 51% male, 49% female), most of the individual programs in the Vocational area are heavily skewed towards one sex or the other: in 13 of the 29 programs more than 60% of the students are female, in 13 of the remaining 16 programs over 60% of the students are male. Only three programs have ratios approaching the average. In five majors over 90% of the students are female; in five other programs over 90% of the students are male. This sexual stratification appears to be a very close reflection of the sexual stratification in the regional (and probably the national) labor market. We attempted to compare the sexual distribution in vocational programs with the sexual distribution in occupations derived from 1970 Census data. This could not be done thoroughly because the majors do not map very well onto Census occupational classifications. However, the available evidence supports the interpretation given above. The majors which are dominated by a single sex tend to be congruent with occupations dominated by a single sex (the majors dominated by women are: child care, secretarial studies--in office occupations, professional nursing, vocational nursing, and fashion merchandising. The majors dominated by men are: auto mechanics, air conditioning and refrigeration, welding, construction trades, and fire protection technology). We conjecture with some confidence, then, that the types of vocational programs that men and women decide to major in are highly influenced by the existing labor market and the students' (accurate) perceptions of the traditional role and gender types associated with different occupations. Note also, that with the exception perhaps of professional nursing and fashion merchandising (where the subject matter is traditionally associated with women), the occupations most likely to show sexual-specificity are low-status service occupations or the manual trades.

Ethnicity (Black and Hispanic Enrollment in Vocational Education)

Having found, we think, a relationship between sexual stratification in vocational programs and sexual stratification in the labor market, we began trying to account for minority enrollment distributions in a similar fashion: comparing the programs with the highest minority enrollments to the occupations, or occupational sectors, with the highest minority employment.

We need to stress here that minority enrollment in the college is relatively low with respect to the community the college serves. The table below gives the percentages of ethnic groups enrolled in the college, in the public school district which overlaps the area the college serves, and the percentages of ethnic groups living in the county served by the college:

	1980 Enrollment	1980 Public School	1980 County
White and Others	78.8%	54%	73.7%
Hispanic	12.4%	27%	15.6%
Black	8.8%	19%	10.7%

The reader should bear these figures in mind when we speak below of "high minority enrollments" in this or that program--in fact, as of Fall 1980, there were no programs in the college whose combined Black and Hispanic enrollment accounted for even half of the total enrollment.

However, there seemed to be a relatively clear pattern in the types of majors which had high minority enrollments. The ethnic breakdown for the vocational program area as a whole is almost exactly the same as that given above for the total college enrollment: 12.5% Hispanic, 9% Black. If we differentiate the majors offered in the vocational program area with reference to the types of occupations for which they train their students, we find that some of the majors have a disproportionately high number of Blacks and Hispanics: specifically, these are majors that correspond to occupations in the service sector (Child Care, Human Services, Fire Technology, Law Enforcement, and Vocational Nursing); majors representing occupations in low status clerical work (Office Occupations, but see below); majors representing occupations classified as "Craft and Kindred Workers" by the Census Bureau (Air Conditioning, Auto Mechanics, Construction, and Printing), and majors representing occupations classified as "Operatives, except transport" (Welding). According to 1970 Census data, these are exactly the occupational categories with the highest concentrations of Blacks and Hispanics (taking into account sex in the case of clerical occupations, which are very important for minority women, especially Hispanics, but much less important for minority men). (There is another important occupational category, employing relatively high proportions of Black and Hispanic men--"Laborers, except farm"--for which there is no clear analog among the programs of the vocational program area.)

Having suggested a broad connection between the concentration of minority students in specific vocational programs and the concentration of minority employees in occupations corresponding to those programs, we must now allude to several exceptions. Of the ten vocational programs in which minority students account for the largest proportion of the total enrollment (from 23.5% to 47.5% of total enrollment), eight fit into the four occupational classifications we mention above (service, clerical, craft, operatives, except transport). The two majors which do not fit into these classifications are Radiological Technology and Food Management: the first corresponds to the occupation "Radiological technologists and technicians" in the "Professional, technical and kindred" occupational category: a category in which Blacks and Hispanics account for only 4% of employed males and 8% of employed females in the Census Bureau's metropolitan area corresponding to the area served by the college. Census data broken down by ethnicity is not available for individual occupations such as radiological technology--instead, we must use the category "Health Technologists," which includes not only radiological technicians, but "clinical technologists and technicians," "Dental Hygienists," "Health record technologists," "Therapy Assistants," and "Health technicians" as well. Still, taking "Health Technologists and Technicians" as the category for comparison, we find that this area has the highest proportion of minority employment of all of the areas in the "Professional and Kindred" occupational category (23.4% for the entire Profession and Kindred category, Blacks and Hispanics account for only 7.6% of those employed). Thus, radiological technology is not as great an exception as it would seem at first. We were unable to pinpoint any occupational category in the census data that corresponded closely to the major of "Food Management" (which only 16 students have declared as their major), and can offer no suggestions as to why it should be favored more by minority than Anglo students.

The ten programs mentioned above account for 26% of all Black enrollment in vocational programs, 28% of all Hispanic enrollment and 12% of all Anglo enrollment. 4.5% of all Anglos in the college are enrolled in one of these ten programs, 10.3% of all Blacks, and 11% of all Hispanics.

There are two more interesting exceptions to the general relation we have suggested between minority enrollment in specific programs and minority employment in corresponding occupations. (1) While the relationship seems to hold for female-dominated occupations in the service sector (e.g., child care), it does not seem to hold at all for male-dominated occupations in the service area (Law Enforcement and Fire Protection technology). Blacks and Hispanics account for only 8.37% of the policemen and detectives employed in 1970 and only 12.8% of the Firemen and fire protection specialists employed in 1970. However, Blacks and Hispanics account for almost 40% of the Law Enforcement majors at the college and 12.1% of the Fire Protection Technology majors. With respect to Fire Protection technology this is not really much of an inconsistency--especially when we note that Hispanics account for all of the minority students majoring in this area and all of the minority people employed in this area (12.1 and 12.8% respectively). In other words, Fire Protection appears to be an occupation in which Blacks have made no in-road whatsoever. The case of Law Enforcement is somewhat more uncertain--it is possible that minority recruitment policies of the last 10 years (remember that we are using 1970 census data) have increased the number of minority people employed in this occupation. The relatively high percentage of minority majors in Law Enforcement (of which Blacks account for two-thirds) may also be related to the fact that Law Enforcement is the only department in the college headed by a minority administra tor (a Black). (2) An exception to our generalization, and one we cannot really account for, is that one occupation in the "Craftsmen and Kindred workers" occupational category--Construction Trades-- had, in 1970, a relatively high percentage of minority employees (25.2%). As of Fall, 1980, however, only 16.1% of the students majoring in this program were Black or Hispanic (below the average for the vocational program area). We can only speculate that this discrepancy may derive from changes in the construction industry in the last ten years.

There is another factor related to ethnic enrollment--location of the program. The college is split into two regions. The Main campus of what we will call "Region I" is located in a predominantly Black neighbor hood; the main campus of "Region II" is located in a predominately Anglo, upper-middle class neighborhood. Of the ten programs in which minority students comprise a disproportionately high enrollment, eight are headquartered, and are primarily taught out of Region I. One of the remaining two programs (Office Occupations) has parallel departments on both campuses, while the remaining program (Food Management) is taught at Region II, at a night campus in Region I, and "on-the-job."

More generally, 15% of the students in Region I are Black; only 6% of the students in Region II are Black (Hispanic students account for 13% of the student population in both regions). Put another way: 62.3% of all Black students attending the college attend classes in Region I; 33.4% of Black students attend classes in Region II.

The stratifications by sex and ethnicity raise some interesting questions for our study: most obviously, how does the relationship between college program and occupation operate--are students counseled into these programs on the basis of sex and ethnicity, do they select their majors on the basis of their perceptions of realistic job opportunities, do the programs in fact cater to students who are already employed in these areas? If in fact these programs present their students with different types of literacy demands, and if literacy development is to some extent dependent on the literacy demands one must deal with, is there a differential development of the literacy skills of men as opposed to women? Anglos as opposed to Blacks and Hispanics? One thing seems certain: in studying the literacy demands of students in the community college, it is essential to take into account the relationship of sex and ethnicity to selection of program major and the social structural positions of the occupations for which these majors are purportedly preparing the students.

In selecting areas to study in the Vocational program area, we made an assumption that any program we studied must be studied as a program: that the various courses which made up the program must be seen as fitting together to form an academic career through which the student must pass in order to be adequately trained for employment in a corresponding occupation. The literacy demands for particular courses must be seen as fitting together to form a "higher order" demand on students seeking such training. Such an approach is not inconsistent with our recognition of the fact that many, perhaps most students do not follow a program through all the way to an Associate degree. We assume, however, and our observations of the programs bear the assumption out, that almost all students, even those with very specialized interests, do pursue a block of courses within a program--that they encounter the program not as a single course or even a collection of autonomous courses, but instead as a coherent set of integrated courses (though the level and quality of this integration may very widely).

We decided, on the basis of our experiences of the amount of effort entailed in observing individual classes (such as Freshmen English), that to study a program adequately would require the efforts of at least two researchers for an entire semester. The first weeks of the semester would be especially intense, with the observers taking in as many different courses as possible in an attempt to pinpoint those which would be most central to our interests. Intensive observation of these selected courses (usually three or four) would then be carried out through the remainder of the semester.

The selection of which programs to study was somewhat more complicated (since we had little way of learning much about these programs before committing ourselves to them). Two programs were selected because of high minority enrollments: Child Care (a female-dominated program) and Office Occupations (the content of the course seemed intrinsically related to literacy). A third program--Accounting--was selected for study because of its very large enrollment, its course content focusing on both the manipulation of prose text and graphic text, and because, unlike the other two programs selected, it had a slightly less than proportionate enrollment of minority students. Thus, we selected a program from the Service occupational area, a program from the Clerical area, and a program from a high status semi-managerial area (accounting). Our neglect of the manual or "Craft" trades such as Air Conditioning and Refrigeration reflects in part a lack of personnel resources and in part our feeling that these areas have already received a disproportionate amount of attention (forming the basis of much of the work of, for example, Sticht and Mikulecky).

Developmental Studies

One program was selected as a locus of intensive investigation solely on the basis of its relationship to literacy: the developmental studies reading and writing courses. This seemed an obvious selection, as these courses are in large part a response to a perceived deficiency in the literacy skills of students entering the college, and because they take as their sole function the inculcation and improvement of literacy skills. The basic math courses are responses to growing instructor concerns about poor math skills and are of additional importance to this study as they involve students with the processing and manipulating of text.

Counseling

We determined that many crucial processes in the college did not have loci in specific courses or programs: the assessment, advising, and placement of students; the decision-making processes by which students (with or without the assistance of advisors) select courses and program majors; the sources of aid and counseling available to students having problems in the school (and the factors responsible for whether or not they are aware of or seek this assistance). In order to get at these questions, we devoted a considerable amount of time and energy to examining the counseling system at the college.

CHAPTER II

STUDENT SERVICES SUBSYSTEM--COUNSELING COMPONENT

Official entry into higher education systems requires prospective and current students to come into contact with student services personnel in a variety of admissions, advising, and counseling functions. These functions will be investigated to provide information on adaptation processes of minority and other students to the community college and vise versa.

The three functions act as college access mechanisms for students and they will be approached in the following manner: To set the context, a brief historical sketch of structural/programmatic changes in Student Services, and, in general, the role of counseling will be presented. Then the Enrollment Phase: new student orientation, pre-advising, and registration, and the role of counselors and faculty advisors will be discussed, as well as the access structure demands on and responses of students. A presentation of the counseling function itself, will follow, removed from the timeframe of the enrollment process. This section will include the counseling activities of academic advising--performance problems--and career counseling; the shared and separate functions of faculty advisors and counselors will be outlined and related to the special groups for which each is responsible. Again the access structure demands on and student responses to will be discussed.

Since aspects of counseling take place in the counselor's office and were not open to observation due to the confidential nature of the interaction, Human Potential courses taught by counselors were observed to gather additional data on counseling processes. These courses in career exploration and personal development will be discussed and analyzed.

In the final section, the counseling issues which surfaced will be presented, and the interface between Student Services--Counseling Component and the rest of the college will be examined.

Sources of Data

The data sources for this chapter include interviews, observation, course documents, and Student Services documents. Out of 150 student interviews, approximately half contained information on new student orientation, advising, and counseling used in this study. New student orientation and registration were observed for three semesters. Eleven counselors, including the administrators of Student Services, and two student services assistants were interviewed. Formal interviews were taped, but there were numerous untaped informal conversations before and after classes, in the student lounge, and in hallways both with students and with counselors. Three counselor staff meetings were also observed. Concerning classroom observations, 35 Human Potential classes were observed over the course of one semester.

This chapter was prepared by Nora Comstock with the assistance of Pat Taylor.

Overview

The major role of counselors prior to about 1975 has been described by counselors as "little more than academic advisors. This is not to say that that is not an important role, but when we are responsible for advising everyone, there is little time for anything else." The counselors decided to change this state of affairs. And some of the changes that they envisioned, sometimes with the help of frustrated faculty and students, laid the foundation for the structure of the access mechanisms that partially describe the Student Services Office and the role of counselors at this time.

Change efforts emerged from a growing awareness, on the part of counselors, of the inability of their small group to meet the expectations of groups for which they were responsible (students and faculty primarily), of a need to utilize skills and training that were not being tapped that were valuable contributions to students adaptation to the college. They were also aware of a need to become advocates of the value of counseling services both for students and faculty.

The changes, then, affected the academic advising function and enhanced the counselor-faculty interaction opportunities. In the following discussion, we briefly describe the antecedents of the changes and the changes themselves. This discussion will provide the context for the description and analyses of the Student Services subsystem as it relates to adaptation options for students at the research sites.

The Academic Advising Intervention

As indicated earlier, academic advising described the major role of counselors in Student Services. However, given the broad range of programmatic offerings and the increasingly larger student enrollments, counselors felt that they were becoming increasingly inefficient and ineffective in this traditional role. As one counselor stated:

> It doesn't make sense...that I should have adequate understanding of however many programs there are...60 to 70 programs...so that I can appropriately advise students in whatever program they're in. It makes sense to me that someone who is working in a particular department is the person who has the most information, the most accurate information and access to everything that's needed in terms of advising.

Apparently, some faculty perceived the situation similarly. When these disgruntled faculty complained to counselors about the problems with counselor advisement, the counselors took the opportunity to suggest that if faculty of the various programs advised their own students, everyone would benefit. Students also complained about advising problems with counselors. In general, there seemed to be a consensus among these groups that faculty should be the advisors of their own students.

The opportunity for change came in 1978 when the administrators of Student Services, several faculty, and a district administrator were requested to study the academic advising process. The changes that ensued, as a result of the focus on academic advising, were responses to two questions: who's to be involved in academic advising and when are they to be involved? Administrators informed us concerning

> Who's to be involved?
>
> Each program is responsible for its own students. Full-time instructors are faculty advisors. Faculty advisors for each program are to be available at the college during New Student Orientation and at the site location during registration to assist students needing advising.
>
> Counselors are to retain advising responsibility for "Undecided" and General Studies majors--40% of the student body.
>
> When should academic advising take place?
>
> Academic advising should take place year round. There really isn't any need to restrict it to a two-week time period. It can take place any time. Students seek out the instructor or advisor whenever they want to, at their convenience.

These changes were not implemented all at once. As one administrator put it:

> We moved slowly (changing a few things at a time). We took one step of the changes in the summer registration; then we added something else the following registration. There was a minimum of resistance to the new duties.

Increasing Counselor-Student Interaction Opportunities

Reducing the numbers of students for which counselors had academic advisement responsibilities should provide more time for use with students in need of general academic advisement, specifically General Studies and Undecided majors. But counselors asked, "What about the students who declared a major and were still basically uncertain about their choice?" "What about students who could benefit from counseling services who were not aware of the options for various forms of counseling assistance?" An on-campus outreach focus was needed to inform both students and faculty; faculty, in many instances, were no more informed than students about counseling and other student services available. This is especially true of the large numbers of part-time instructors, even though a handbook containing general information has been prepared for them.

The topical workshop was suggested as one method of increasing awareness of services and providing more than one-to-one counseling service to the student clientele. Student Services personnel, specifically counselors, began advertising and offering workshops on study skills, effective communication, career choice/exploration, etc. Initially, only counselors who desired to be involved in this type of outreach did so. However, the strategy was successful enough to seed yet another plan--why not teach a credit course in personal development under the auspices of the social sciences? And since a successful venture breeds growth, why not create a department of Human Potential whose faculty are the very counselors who have been successful in teaching the workshops and the courses? The workshops, the course, and the department became realities in due course. And with the status change of counselors from support personnel to faculty, the teaching role became a duty of all counselors.

Increasing Counselor-Faculty Interaction Opportunities

Since faculty were primarily aware of the academic advising role of counselors, Student Services also needed to employ strategies that provided face-to-face contact with instructors. The information memos, posters, brochures that described counselor services and activities were not perceived by counselors as effective communication tools for faculty since the response to these communication devices was negligible. And since the decentralized model of organization for counseling services was not perceived by Student Services administrators as a viable alternative for counseling/instructional integration at these colleges, face-to-face contact was to be achieved through other means.

Several strategies emerged as possible alternatives: counselors as liaisons to specific programs in the college, attending departmental meetings, explaining their services, and generally being visible to the faculty of those programs; counselors as consultants to the departments and specific individuals concerning student programs and instructional approaches; counselors as resource persons requested by instructors to conduct specific workshops, e.g., test-taking skills for a specific instructor's class. All of these strategies are presently in various stages of implementation.

In summary, the steps taken to change inadequate academic advising processes engendered a climate for other changes that could potentially enhance the students' options for adaptation to the college. In the following sections, we will describe and analyze some current interaction or access structures of Student Services that evolved from counselor perceptions of desired changes, given impetus by the previously described climate for change. Furthermore, since access structures are opportunity vehicles for the achievement of goals for which they were created, it is important that we identify (1) factors that contribute to their utility and (2) the cognitive and non-cognitive skills, beliefs, attitudes, knowledge that a student must possess or adapt to to be "successful" in utilizing the options for adaptation to the community college. These identification processes and findings will be included within the analyses.

The Role of the Counselor as Student Services Personnel

The philosophical orientation of Student Services, consistent across the years, is that education should develop the "whole person"--intellectual, personal-social, esthetic, cultural, and even psychomotor aspects. From this base, Student Services can be conceptualized as a philosophy, a function, a role, and a set of activities. As a *philosophical precept*, Student Services, then, is a programmatic conception of the way the educational institution should be related to students. As a *function*, it is a set of responsibilities that the school feels it can and should legitimately assume. As a *role or set of roles*, Student Services can be perceived as containing structured positions that carry the obligation of dispensing the school's responsibility in this area. And as a *set of* activities, Student Services is a number of things role occupants do to and for students that are held to be consistent with the philosophy, the function, and the role. (Ideas are from Weinberg, 1969: 1-2.)

When counselors are hired as the professional staff for the Student Services Office, a period of adjustment is frequently necessary before they can assume the role appropriate to the student services function. By training, counselors expect to spend the majority of their time in various aspects of personal counseling--and expect that other student services personnel should handle other components of the function. However, in situations where the staffing is limited and the tasks numerous, personnel with specific professional training and experience are required by circumstances to perform many roles and tasks they might consider outside the purview of their idealized role. Counselors were expecting to enter a situation where clients were either referred to them or would seek them out as a matter of course. This is not the case in many community colleges.

The transition is a difficult one not only for the counseling staff but also for the administrators of the Student Services Office who are also trained as counselors and not as counselor/administrators. These administrators must expand their role concept as well as that of their staffs to include roles other than personnel counseling, roles that serve to inform the college personnel of the value and utility of counseling. The expanded role concept is a means of increasing counselor opportunities to interact with students and faculty who can benefit from their services.

Such is the case in the institutions under investigation. Most of the Student Services professionals are counselors by training; none were trained as student services personnel. And the expansion of the role concept as a dynamic process is much in evidence,not only in the scope of the outreach efforts but in the in-house staff development which the Student Services administrators provide and encourage for their staffs.

From the beginnings described in the overview, the counselors' roles, broadly described, include information brokering, information collecting, and personal counseling. Therefore, they are expected to collect student information for departmental and administrative records, to assist with registration, pre-advising, and new student orientation (as advisors and administrators of the activity), to provide various special services to the handicapped, to teach college courses in personal development and to conduct workshops on a variety of topics, and to act as one of the college's staff development resources through such workshops for faculty and staff. They also train student services workers who act in paraprofessional roles in the Student Services Offices.

Counselors also administer (for a small fee, collected by the college) several tests to interested students, including vocational interest tests, aptitude tests and personality inventories. They also are assigned a liaison function with different departments and programs in the college. Teachers are encouraged to use the counselors as consultants for instructional techniques in areas such as student motivation, teaching the "culturally different", and cognitive mapping strategies for instruction, etc. Counselors also act as referral agents, both for services within the college and in the community.

In practice, these activities seem to predominate; however, the school catalog describes counseling and the counselor's job as providing services to three counseling areas: academic, vocational/career, and personal counseling. The counselors must maintain records on frequency and nature of contacts with students within these categories. Given practice and expectations, both role conflict and role ambiguity are built into the job.

Discussion: The Counselors' Dilemma

The counselors find themselves in a dilemma: how to do the job that they were hired to do--counsel students and provide assistance to them in making adjustments to the demands of college life and to their complex lives in general--when the job setting has not been prepared for this role. Counselors, then, must provide for their own education in the broader function of Student Services and for the education of their users. They must explore and create their own guiding images, as well as the mechanisms and behaviors that will take them toward those images. Their training and interpersonal skills can be utilized in the counseling approach to student services functions as delineated by Betz (1980, to be discussed in more detail under "Current Access Structures" this section). Most of the elements of her model fall within the loose student services framework currently visualized, but the process of change makes implementation difficult. These tasks are further complicated by the historical evolution of student services as Fenske (1980) points out:

> Student services emerged and evolved by default, by taking over necessary and sometimes unpopular tasks abandoned by trustees, administrators, and faculty. It has grown into a ubiquitous but somewhat invisible empire in virtually every institution of higher education. During one rather brief period early in this century, it came fairly close to entering the mainstream of the academic program. In general, however, student services as a distinct professional role has never become thoroughly integrated into any of higher education's three principle functions of teaching, research, and service. By assuming, over the years, a multitude of student-related roles and activities yet by remaining estranged from the vital functions of the academic enterprise student services finds itself in the peculiar situation of being indispensable but peripheral (p. 3).

Boundary spanning--"a situation where a person simultaneously is a member of two or more work groups in an organization" (Kramer, 1980:105-106)--seems a requisite role to overcome the legacy described by Fenske. Boundary spanning involves two classes of functions: information processing and external representation (the latter exemplified by the liaison roles discussed above). "As service staff and faculty collaborate to meet the varied needs of an increasingly diverse academic community, one may anticipate that boundary-spanning activity by student services staff will increase" (Ibid.: 106). The expansion of the role concept seems to support this prediction.

Therefore, a student services staff that is comprised of counselors has at least three major problems to face in its efforts to serve the students and the college: (1) its own expectations, attitudes, beliefs derived from counseling training; (2) the peripheral status of student services in the institution; and (3) its survival while creating a raison d'etre that is viable, given the constraints of the internal environment.

The Student Services Activities of Counselors: Current Access Structures

The current student services activities designed for student use can be categorized for the sake of analysis into three access structure categories although there is some overlap in the categories. The classifications are: Direct Access, Indirect Access, and Direct-Indirect Access. Direct Access refers to a mechanism that places the student in direct one-to-one contact with a counselor or faculty advisor; group counseling could also fall into this category if there is a certain degree or level of group interaction. Indirect Access indicates an intermediary functioning as an information resource for the student to be made aware or encouraged to access the service. Examples include faculty advisors recommending career counseling, staff development activities that enhance faculty valuing of counselor roles, consultation with faculty, etc. Direct-Indirect Access describes a situation where counselors are in face-to-face contact with a group of students and the interaction is either not long enough to establish the group counseling climate or the goal of the experience is awareness raising or knowledge (information) transmission and not a counseling experience. In either case, the student has direct contact with the counselor but may choose not to carry the contact any further than the context of the particular situation. These access structures can be further delineated by the timeframe in which they are operationalized. Chart 1 illustrates the access structures along the Direct-Indirect/Time-Bound--On-going dimensions (see next page).

These activities reflect the elements of the counseling approach to student services functions described by Betz (1980). In her descriptions, however, she projects student services staff other than counselors into the the elements of her model: referral, direct support of students, direct programming, relationships with other workers, and consulting roles. In a sense, in this situation at the research sites, the college's personnel must be trained to approach interaction with students in a counseling mode. This is one of the major problems student services must confront because their staff is severely limited.

Many faculty and other college personnel do not understand the importance of counseing skills and attitudes in working with people, especially students who are uncertain about themselves, their skills, etc. Through staff development workshops, liaison and consulting activities, counselors build their own skills as well as model (for others) the process and skills of the counseling approach, basically to interpersonal communication.

Frequently, these types of efforts take time to come to fruition; and it is difficult to defend the interventions to evaluation attempts because the products of the work are not immediately apparent, and are, in fact, affected by personalities, politics, and other forces. Further, the Student Services Office alone cannot affect change in college personnel approaches to interaction modes with students. The institution's leadership must do more than sanction the efforts; it must become a

CHART I

CURRENT ACCESS STRUCTURES TO STUDENT SERVICES COUNSELING COMPONENT

	DIRECT	DIRECT-INDIRECT	INDIRECT
TIME BOUND	Academic Advising Enrollment Phase: New Student Orientation Pre-Advising Registration Re-entry after scholastic probation	Enrollment Phase: New Student Orientation Registration Facilitators Administrators Training of Student Services Workers	
		Topical Workshops Human Potential Courses Personal Development Career Exploration Services for the Handicapped	Referrals -- self (student) public relations literature; letters to high school seniors; Career Day, etc.
ON GOING	Career Counseling Personal Counseling Academic Counseling	Training of Student Services Workers	Referrals -- others (liaison, staff development, consultation, etc.) -- student peers, family faculty and other college personnel; high school or social agency counselors.

part of them in visible ways.

The partial listing of counselor activities in Chart 1 identifies the efforts being made to integrate student services into the flow of college services in general. The discussion has indicated areas that need further consideration and attention. These will be integrated into the final section where recommendations for change will be considered as a unit.

In the following discussions, elements of the Direct and Direct-Indirect Access structures will provide the context for an examination of services. The descriptions detail the process of interaction between the student and school personnel (specifically counselors and faculty advisors), while the analyses focus on discussion of the process or some aspects of it, the demands of the processes on students, and student responses to the demands. The Enrollment Phase is examined first, followed by the Counseling Function *per se*.

The Enrollment Phase

The Enrollment Phase has four parts: (1) orientation presentations, (2) assessment, (3) academic advising, and (4) registration. The following descriptions/analyses are of the orientation presentations and assessment. Academic Advising and registration each will be considered separately.

New Student Orientation

Orientation is the main vehicle by which the college provides new students with information about the college, assesses basic skills, prepares new students for the registration process (including documents required for admission), and advises for course selection. (However, only 30 to 40% of the new students take advantage of this service.) This event is usually held a month prior to registration. While some self-assessment surveys are completed at registration, and while some courses scheduled diagnostic tests, orientation is the only occasion on which a large block of students is assessed for basic skills attainment.

During the period of field work, orientations were held over two-day periods with each session lasting two hours (a total of 12 sessions). The majority of students in one district--the only research sites included in this section--attend orientation at centrally-located colleges within the district. The orientations are coordinated by the counseling staff, but the staff delegates the job of reading and writing assessment to the faculty of the developmental program and math assessment to the Math Department.

The orientation is meant to serve four functions: (1) to give students some basic information about the college--programs and services offered, etc.; (2) to assess the reading, writing, and math skills of the students who attend; (3) to advise students about courses; and (4) to provide data for preparation of the preliminary paperwork required for registration. These four functions are performed differently at various college research sites; two versions of orientation procedures are described in some detail.

Procedure I

Students attend orientation sessions at the times indicated on their time permits (see section on Writing for details on time permit acquisition). The orientation is held in a college facility located on the campus. As the students enter, those whose permits indicate more than 24 college credit hours (later increased to 30) are directed to the other side (permits are color coded for process efficiency). Most of the students are in the latter category. There are approximately 125-130 students at each orientation session.

All of the students are given a packet containing a blank assessment card (to be filled in after assessment data is provided), schedule forms to be used during the day, pamphlets on financial aid, and so on. The orientation then beings with a slide-tape show describing the college. This slide show was directed by an administrator in the Student Services Office who described its function during a planning session in Fall of 1979 "...to calm them (students) down and get them into a listening mood...to let them know that information will follow."

The slide show begins with some general information about the college. The narrator says that the average age of students there is 29-30 years (data we have collected places the age closer to 27). The ethnic enrollment figures for the college are given as 72% Anglo, 14% Mexican-American, 12% Black and 2% Oriental; it is said that these figures reflect the ethnic breakdown of the city (according to figures in the college planning report for 1979, the city population in 1977 was 69% Anglo, 12% Black, 17% "Spanish-speaking", all others 2%). Enrollment figures for the college (excluding ABE/GED) in the Fall of 1979 were 75% Anglo, 12% Mexican-American, 10% Black, all other groups 4%. (Absolute enrollment of minority groups has slowly increased, but their percentage within the total enrollment has declined over the past three years.)

The narration of the slide show then goes on to describe the four areas of education that the college serves:

1) University Transfer: These are freshman and sophomore courses, transferable to four-year institutions, that lead to Associate degrees.

2) Occupational/Technical: This, according to the slide show, is designed to meet the city's needs.

3) Continuing Education: These courses are concerned with personal development. Over one hundred subjects, according to the narration, are offered to teach a variety of skills.

4) Adult Basic Education: In this section, the narrator talks as usual, but there are no pictures or slides for many seconds (slides for other sections show school facilities and the like). Finally, there is a picture of an elderly Anglo man with high school-age students. The narration speaks of the "democracy of education" which is "for all ages, with public support and encouragement."

A second slide show begins, this one describing student services. Included in the narration is a description of counseling services: personal and career counseling, financial aid counseling, counseling for veterans and so on. The library and testing center services, as well as the tutoring laboratory are mentioned. This slide show then presents the documents that the student must bring to registration: (1) a high school or college transcript; (2) an immunization certificate; and (3) an advisement sheet signed by an advisor.

The slides describe course planning--there is a slide which lists options in courses, along with the appropriate forms. A comment about time management is included in the narration: courses should be balanced with other commitments such as work and the family. The various abbreviations and acronyms used in school materials are explained in the slides, and the location of registration is mentioned. With this, the slide show ends.

After the slide shows, an instructor takes the students through a self-assessment of their "personal growth potential" (the students must answer such questions as "Who are you?", and "Do you like yourself?"). On the basis of this self-assessment, students are invited to consider taking human potential courses. An instructor in the Math Department is then introduced, and he takes the students through another self-assessment--this one to determine whether or not they should enroll in math courses (such questions as "What do you plan to major in?" "How long has it been since you last took a math course?"). Students are told that if they intend to enroll in a math course, they should report to a certain room during the advising session to take an individualized math assessment test. (See Math section for details of math assessment.)

An instructor in the developmental program is introduced and makes the following remarks:

> There are three steps you'll be going through today. This is orientation. The film you just saw told you something about the college and the registration process...We asked you for a writing sample, and we are going to tell you how you did on that today.

She explains that the writing samples are assessed by English instructors, who check them for unity, coherence, grammar, and spelling. If they find that the writing sample is "not acceptable", they make a course recommendation (to a developmental class) for the student. The instructor continues:

> We're really dedicated to giving you a strong educational background in writing, reading, and math. After orientation, those of you with yellow time permits will go down to the gym to take the reading test. We'll let you know what your scores are before you leave the room, and we'll let you know how you compare with other students at the college.

After other comments on the uses of the assessment cards in the orientation packet which carry assessment data on the students for advisors, this assembly disbands. Individuals with more than 24 college credit hours who have already submitted a writing sample stop by a table on their way out of the room to learn of their writing evaluations. Those students with less than 24 college credit hours are herded down to the gym to take the reading test. (The testing procedure is described in the section on Reading.)

Once students receive their assessment data, they are routed one of three ways:

1) Students with reading and/or writing scores indicative of basic skills problems are directed to developmental program personnel for an individual explanation of the scores. These students are advised to enroll for various levels of remedial reading/writing courses prior to attempting regular courses. If they enroll solely in developmental courses, they need see no other advisor; however, if regular course work is taken concurrently with developmental courses, students must see either a counselor or their academic advisor. These advisors should ask the student about his assessment scores and officially advise him to take the developmental courses.

2) Students with declared majors and acceptable test scores proceed to see their departmental advisor.

3) Students with Undecided or General Studies majors and adequate test scores must see counselors.

Further, students desiring to enroll in math courses at any level are to see a math advisor prior to enrolling in math courses.

Procedure II

The orientation procedure at another college is quite different. There are fewer students (between 50-60 per session), and the orientation sessions are held in classrooms (albeit large lecture classrooms). There are no time permits and no seating segregation. The same orientation packets are distributed; the same slide shows are shown. But rather than representatives from the various divisions, counselors organize and direct the orientations. Their main function appears to be the clarification of tape-slide subject matter and the materials in the orientation packet. The counselor explains that the assessment tests are administered

> so that we can better know how to serve you; so we can make better recommendations. If you score below a certain level on the tests,we recommend that you take courses to bring your skills up to a level that will serve you in the rest of the college. That doesn't mean you have to take these courses; they are voluntary. But we would strongly recommend that you consider taking them if you feel uncertain about your skills, or if your test scores indicate that you may need them.

Later in the orientation a student asks for some clarification on the voluntary nature of the developmental courses. The counselor says that

> if we find that you do poorly on the reading and writing assessments, we urge very strongly that you take these courses. We don't want you taking courses you can't pass...We recommend that you score at least on the 12th

> grade level. We doubt that you would be able to pass the Composition I class otherwise.

After the orientation presentations, the reading assessment and advising procedures are basically the same as in Procedure I. Students are to go to the developmental program advisors to get results of writing assessments, but this procedure was not described to the students at orientation. The procedure is supposed to be explained at the time the students acquire time permits and submit writing samples. We were unable to determine how many students actually follow the recommended process. At this site, a memorandum from the department head of developmental studies encourages Freshman English instructors to request writing samples from their students on the first day of class and to recommend developmental classes to those who need them. We were, again, unable to determine how many instructors did this, but our impression is that most of them do not.

Discussion: Orientation Issues

Orientation at the community college cannot be a one-shot gamble. According to O'Banion (1972), orientation should be a continuous process beginning with college interaction with students in high school and continuing until the student exits from the college, either as a transfer to four-year colleges, to jobs in the community, or simply having accomplished some personal interest goals. The overarching goal of orientation is to help the student learn about himself and about the college. O'Banion describes the nature of most orientation proceedings:

> Most orientation sessions are a holocaust of information giving, in which administrators and student personnel staff members feel they have met the purposes of orientation when they have 'told the students what they need to know.' In this kind of orientation, students are exposed to the chief officers of the college in a series of speeches designed to make students feel welcome and to inform them of relevant programs offered by the college. These sessions are often followed by citation of rules and regulations which the student is supposed to remember and observe throughout the college experience. The 'information blast' may also include an introduction to the dozens of clubs and organizations available to students. Finally, the student sits through an explanation of program tracks, course offerings, academic advising procedures, registration procedures, and a detailed account of where to place his parking sticker (1972: 190-191).

Even though this statement describes orientation sessions nearly ten years ago, the situation does not appear to have changed much.

Clark (1972) made a statement concerning orientation/admissions procedures and minority students that is equally applicable to many of the new students at the community college.

> Most of their(minority students) life experiences and communication have been informal. The informality of their life styles

> leaves them ill-prepared to cope with the formal aspects of admissions requirements, registration procedures, etc....The very strict, orderly procedures for college inquiries and the subsequent impersonal relationships which accompany college enrollment discourage the minority group from seeking admission (p. 38).
>
> When the minority student is enabled to bring the routine operational aspects of the college within his perceptual field and develops the ability to cope with these routinized operations, he becomes more and more accepting of the other experiences at the college (p. 40).

While generally agreeing with the content of the statement, there is one aspect of the college's responsibility that is missing: the college's acceptance of the differences and validity of different student lifestyles. The college must also make adaptations to enhance the students' adjustment to a value system which is predominant in the world of work which the students will eventually enter, if he is not already working. There are many informal mechanisms through which the college adapts to student lifestyles; and while informality is not inappropriate, it must be an informality of process and not of goal attainment, which is enhanced by college policies that promote goal achievement.

General Comments on Assessment Practices

While a thorough discussion of the assessment practices of the colleges are undertaken in the reading and writing sections of this report, some general comments concerning the superstructure are appropriate here. These comments relate to two issues: informing the students about assessment at orientation and the possible consequences of the descriptive information on assessment for some students.

There is no indication prior to the orientation presentations that there will be an assessment of basic skills. One way of viewing this situation suggests that by not telling the students of the assessment, they do not build up anxiety. Therefore, fear of assessment does not become a factor in a decision to attempt entering the community college. Furthermore, surprise anxiety may be considered less debilitating than anxiety that builds up from knowing the tests are imminent. Part of the rationale might be inferred from the philosophy that regardless of the results of the assessment (and the student may refuse to be assessed -- we have no information on the numbers who refuse), it is only information to be used by the student. It is his choice to utilize the information -- to make excuses for his performance and ignore the scores or to agree with the assessment and act accordingly -- in addition to other knowledge he has about himself that advisors do not have.

Another way of looking at assessment is that it is valuable information for the student, and the college will provide the mechanisms for assessment and access to the information. Since testing is not mandatory, there is no need to advise the students beforehand. The student is an adult who must cope with the exigencies; the mechanisms for information are provided; the student need only decide to utilize them.

As a further comment on assessment, generally in the orientation, testing is presented as a valuable tool for the student to consider, and the presenters stress the college's desire for students to succeed in their endeavors. However, the label "unacceptable" ascribed to a certain level of scores (as per our observation of some presentations) may transmit something of "unacceptable" to the student himself, of his self concept, and therefore to how others will perceive him if he enrolls in developmental course work.

The access structure demands on the students: Student attendance at orientation indicates that students somehow learned about it and that they chose to attend. Once at orientation, the students are provided with information in the form of written materials (written at various levels from sixth grade to college freshman), audio-visual presentations covering new as well as some of the same material presented in written form, and verbal explanations by college personnel. In the more informal orientation there is an opportunity for questions from students; however, they rarely take the opportunity. The orientation at the gym is not conducive to questions, and students are advised to seek out college personnel if they have any questions. Therefore, if the data provided is to benefit the students, they must have a certain level of skills and certain attitudes about the process. These skills and attitudes include, among others:

1) inclination to do what is requested at orientation, including testing, sitting through presentations, waiting in lines, etc.

2) ability to access information from written and/or verbal symbols at the levels used in the handouts, presentations and assessment tools.

3) ability to ask questions to get understanding he needs to accomplish orientation goals.

4) persist through the process regardless of how confusing or frightening it might be.

Student responses to access structure: One of the administrators indicated and several counselors commented on the fact that out of a possible 5,000 new students, only 1,300 came to new student orientation. Some of the students who did not attend may not have known about it. One frustrated student at registration commented that the college ought to have an orientation to prepare students for registration; others must have chosen not to come because they felt there were no advantages and no consequences to non-attendance. Others decided to enroll too late to attend orientation. According to one counselor, of those students who do attend

> some of them are there because they know that by coming, they will have access to earlier time permits for registration. So they are playing it as a game, but they are not really paying attention. We accept that. We have not been able to figure out what to do about it.

A major consequence that counselors attribute to non-attendance at orientation is student enrollment in courses they are not academically prepared to handle.

> Some of the students who do not attend orientation and who do not get that preassessment, and they do not get adequate

> advising, simply because they don't talk to anyone before they go to register....their choices could have been more realistic, if they had advisement based on assessment.

There is no information on the number of students who attend orientation who do not go on to register in the college, or even those who do not go on to advising before or after the assessment process. Therefore, it is difficult to gauge the response to the orientation process in general and to the effects of the different procedures of the colleges. However, from various data sources, including college documents and interviews with developmental program personnel, it seems that of those students who are advised during orientation to take developmental courses, few actually do so. One counselor indciated that the low enrollment rate might be affected by student use of the tutoring lab rather than becoming involved in a semester-length course. The fact remains, to be considered again under literacy and counseling, that providing assessment information to students does not seem to affect significantly their decision making concerning their ability or desire to enroll in regular coursework.

In summary, the actual access structure demands on students of the orientation process are minimal. Persistence is a basic requirement that will get students through.

Orientation as an access structure is utilized by only 30 percent of the new student group; some of the reasons have been explored. Of the 30 percent who do, it seems that a large number do not heed the advice to enroll in developmental course work. Counselors and faculty advisors feel that these are some of the students who end up in academic difficulty during the semester.

Academic Advising -- Preparation for Registration (course selection)

The first contact that most students have with counselors and faculty advisors is during the enrollment phase. After entry into the college, an advisor's "approval" is required for registration each semester.

Originally the responsibility for all academic advising was assigned to the counselors; however, this arrangement proved to be unsatisfactory for several reasons. The students complained that they were not advised accurately or adequately about courses in their majors; faculty complained about getting students who did not belong in their classes; counselors noted that the advising load was too great for them under that system. Counselors did not have the expertise necessary to advise students in specialized fields, about sequencing or transferability of courses. Faculty in a given field would be better resources for student advisement. Therefore,the college began to utilize faculty as discipline advisors and counselors as advisors for Undecided and General Studies majors.

In order to standardize the process for all faculty and to provide an easy reference tool, the district produced a "Handbook for Faculty Advisors" which clearly and methodically describes the duties and responsibilities of faculty advisors and describes the college services to which faculty can refer students for assistance of various kinds. A list of the course equivalencies for local area colleges and universities is also provided for faculty use.

In the following discussions the process of advising by faculty and counselors will be described and analyzed.

New Student Orientation: Department Advising

After determining where the requisite faculty advisor is located (either by asking someone or checking the advisor location sheet in the orientation packet pamphlet), students make their way to their advising stations.

Student declaration of a major makes the major a given in the advising session. Advising becomes a matter of:

> answering questions, handing out program materials, helping the student complete his/her degree plan and approving and stamping course cards. The advisor may also conduct other appropriate activities, such as necessary pre-testing, if he chooses (p. 6 Faculty Advisor Handbook).

An example of such a session:

> Student walks in and advisor looks up, says "hello" and indicates a chair for the student.
>
> S: I want to take some business courses.
> A: What do you want to take?
> S: I don't know.
> A: What's your major?
> S: I don't know.
> A: What do you want to do?
> S: Take business. I took some business courses in high school.
> A: Are you going to a four-year institution or getting an associates' degree?
> S: I want to transfer to the university.
> A: Then turn to p. 64 in the catalog and don't let anyone tell you differently. Just follow i . (Page 64 indicates Business Administration degree plan).
> S: Business Administration?
> A: Follow only this because courses will transfer but only these will count toward a degree plan...You need statistics (business)...O.K.?
> S: I don't know about accounting. I can't see doing it for the rest of my life.
> A: You need to take six hours of accounting. If you don't like it then stay out of it. If you're having fun doing it, great! If not, you'll waste your time.

The advising sheet is signed, stamped, and the student is now ready for the registration process which will take place four weeks later.

New Student Orientation: Advising Undeclared and General Studies Majors

Counselors encounter some special problems with these majors. Some of the undeclared majors are students who are registering for one course, while others are "drop-ins" from four-year schools trying to enroll in courses that are either not offered in a given semester at their colleges or are offered at inconvenient times; others perceive the courses at the community college to be easier than those at four-year colleges. The perception of need for counseling on the part of these students is apparently rather low.

In the case of the General Studies majors, however, counselors have something to work with. These majors must take 60 hours; only 18 of these are specified: 6 hours of U.S. government, 6 hours of U.S. history, and 6 hours of English. The remaining 42 hours can be electives from "any program or course area." The colleges' catalogs encourage the general studies major to check with counselors "for specific directions and advice regarding the transferability of courses selected for this degree."

Approximately 50% of the student body indicates General Studies majors. Some students attend college for personal reasons and are leaving themselves the option of switching to an Associates' Degree in Arts and Sciences. Other students approach college with only vague ideas about the ultimate career and/or personal value of a college education. The General Studies major provides a program of courses which will transfer, in most cases, to four-year colleges.

These students reflect a popular perception that college work per se will help them to get a better job or higher status. Debating the truth of this perception is beyond the scope of the present project; however, suffice it to say that students choosing this major have an apparent need for information,as well as some possible confusion about college and their place in it. The counselors' responsibility, therefore, is to give the student information about courses in the college, as well as about transferring those courses at a later date to four-year schools. Futhermore, if time and circumstances permit, the counselor will attempt to aid the student in focusing his college goals.

Concerning the advising process per se for General Studies and Undecided majors, counselors are situated in the Student Services area where they have their individual offices. Students are seen individually, and they wait in a hallway to be called for advising. From interviews with counselors,it seems that the process is varied and rarely lasts over 10 minutes because of the numbers of students who are waiting to be advised.

In addition to the assessment data provided by the college, some counselors ask questions concerning students' educational backgrounds -- high school grades, how they perceive their high school performance in various subjects. Some ask about interests and some about skills students feel they possess. Based on information about the student derived from the assessment cards and the brief interview, counselors assist students with course selection. The basic nature of the counseling interaction is one of reflecting for the student, the information concerning him that the counselor has gleaned. One counselor's comments seem to capture both the philosophy and the process:

> In general, my approach is to give them information to help them get information and help them sort through what kinds of decisions they must make. But I resist the temptation to make decisions for them or tell them what they should do.

A student's comments seem to confirm this approach:

> I talked to a counselor; he said whatever you feel like, whatever you feel right about, whatever you want to take is all right with us.

Another student describes the process:

> I came about three different times....trying to figure out....First time I went to the main campus....I talked to the Veterans' counselor there, and he asked me what were my plans, and what kind of degree did I want to get? You know, I said I just wanted to take some classes to see if I could, if I like it....I'm not going to dream about a degree right now, you know, that's not my major problem right now. I just want to get into class.....and roll with it... He suggested a general studies major and you know I looked over the book and I had come to the conclusion myself. I should take that because that would leave me open. I wanted the option to do different things. And then I came here and I talked to the Veterans' counselor (at this college) and he advised me the same way. But I guess it was really my choice, but you have to see a counselor anyway.

To most counselors, academic advising for General Studies majors during orientation is telling students what is in the catalog in the degree plan and getting them started with basic courses. These students are encouraged to return when there is more time for in-depth exploration of their goals.

Pre-Advising

The process of pre-advising is very similar to that described for New Student Orientation. However, when students figure out the early registration time permits benefits of pre-advising, at least as far as course selection goes, they have a more successful registration experience. The example below illustrates the point.

> I did very well in my courses. I talked to my teachers and they said 'you've done very well and the best thing for you to do is to pre-register (since there is no such thing as pre-registration, he is referring to pre-advising) and get your courses right now and make sure you get in early to register. And I went to each of my teachers and they signed my slip... I went to my chemistry teacher and told him I wanted to get in his class next semester. I went to the Dean's Office and picked up my application form (pre-advising card) first, then I took it to my instructor and said will you sign this. He said sure. And then I went to the English and said I want in this course at such and such a time. Then I pre-registered, more or less, and when I registered it was a breeze. I got everything I wanted.

This student is the exception. Most students simply rush to their academic advisor and get one signature.

According to a Spring 1980 college-conducted registration survey, over 40 percent of the respondents (N=9, 436) indicated they were not pre-advised, even though an advisor's signature, which is supposed to signify advisement, is required for registration. Students with vocational/technical majors were disproportionately represented among those who were not pre-advised, at about 44 percent. Roughly -- and these figures are probably low -- 22.8 percent of the Arts and Sciences and 27.4 percent of the undecided majors indicated no pre-advisement. These figures suggest that many students do not perceive an advisor's signature to signify advisement. Indeed they described advisement as interaction between the advisor and the student concerning course selection in a manner which was not perfunctory, and this was not what they experienced.

In summary, advising at New Student Orientation is performed in a rush. Since students appear in a rush and there are many lined up waiting to be advised, advisors tend to rush; the students feel more rushed because they see the lines and the advisors seem rushed and so on. One result is a negative perception of the advising process. Two students interviewed indicated that even when they felt uncertain and wanted to talk things over with their advisors, indication of interest in an area was grasped by the advisor and next thing the student knew he had a schedule of courses for registration that he was to experience to see if he responded to the content. However, in all fairness, students admitted needing to get home to babysitters, back to work, etc. and indicated they would not have had much time to give to discussing career options. Nonetheless they did not feel advised in an adequate fashion. Further, there is no continuity of contact between advisors and students. These students do not seem to return at a less harried time either to faculty advisors or counselors for career counseling.

The fact that the colleges employ small numbers of full-time instructors and that only full-time instructors are allowed to perform advising puts a burden on academic advisors to handle large numbers of students. And since most part-time faculty are not perceived by counselors and apparently decision makers as knowledgeable enough about the college and academic requirements of their field, they are not integrated into the advising process. Students, however, report gaining valuable insight concerning their fields from part-time instructors who influence their course selection and career plans. Part-time instructors seem to be an under-utilized resource in this and other ways.

Pre-advising for current and former students seems to fare no better in terms of student perceptions. Unless the student initiates an advising session prior to the hectic week when most of the students are trying to get advised, the experiences of New Student Orientation are repeated.

There were also reports of advisors who spend time with their students and who did not rush things. However, these advisors seemed to be an exception to the process exigencies. Students who have had supportive interaction with their instructors reported the greatest amount of satisfaction from the process.

Basically, then a student can get advised and registered for courses without having any real sense for why he is doing what he's doing. Sometimes his assessment scores are asked for and he is advised to consider remedial work or to consider utilizing the tutoring labs if he gets into trouble with the course work, but the student must make his own choice.

When the college catalog is used in advising, the students are referred to the pages in the catalog where their degree plan is located as advisors suggest courses. There are no student records to consider as part of the advising system.

Discussion: The Academic Advising Process

Several issues of primary importance are embedded in the description of the academic advising process: the college's apparent perception of the function, the role of the advisor which largely defines the process, the influence of declaration of a major, continuity of contact between advisors and students, the student data available for advising, and preparation of faculty advisor for the advising task. The following discussion will focus on the relationship of these key issues and the consequences for the students and the college.

College Perception of Academic Advising, Role of the Advisor, and Impact on Academic Advising of Student Declaration of a Major

The Faculty Advisors' Handbook sums up the advisors' responsibility as "assisting the student in making the best use of the opportunities available at CCC." (p. 1); the advisor's role is assigned six functions that are generally similar to the role description of advisors for New Student Orientation: (1) answering questions; (2) handing out program materials; (3) advising and helping the student complete his degree plan; (4) approving and stamping course cards; and (5) conducting other appropriate activities, such as necessary pre-testing.

These tasks describe minimal expectations -- basically as Dressel (1980) says "a perfunctory series of contacts." He goes on to make the following statements about academic advising.

> In this conception of student program planning where the students are not expected to grasp the significance of courses other than as a body of content, nor are they expected to understand how several courses are sequenced and integrated into a program, the advisor's role is strictly limited. The advisor should know the requirements and should enforce them upon students. Beyond this, he helps to guide the student through a maze that even the advisor does not fully understand, either in its rationale or its policies and rules....The advisor of lower-division students is not expected to know anything about disciplines and their vocational implications (except possibly for his own). The advisor is usually expected to be conversant with general education and institutional curriculum requirements within the first two years and to hold the students to them (p.251).

Dressel's comments quite accurately reflect the role of the advisor and the impact on a student's course selection of declaration of a major. The process of questioning the student on interest, when it takes place at all, is for identifying the degree plan which gives the advisor a clear direction in which to steer the student. Hence, the student's path is determined for him and the advisor helps the student schedule the courses to meet the requirements and, in some fashion, his needs. Even for General Studies majors the process is not very different, although the student has far more latitude in structuring the program to suit his desires. The emphasis is on getting basic requirements out of the way and exploring specific discipline areas for selection of a major or area of interest. This process is partially guided by the expectation that these students frequently transfer to senior colleges or will shortly choose a major and that having followed a degree plan will serve the student best in this regard. In essence, then, there seems to be little difference between the advising of discipline majors and General Studies majors at these research sites.

Dressel believes that "advising is caught in a no-win situation in a culture predominantly devoted to content coverage, the departmental-disciplinary orientation, and a reward system that has little to do with the quality of either teaching or of advising" (pp. 251-252). This notion could account for the "rubber stamp" perception that students hold of the advising process.

Continuity of Contact and Student Profiles

Since only full-time faculty are utilized as academic advisors and these faculty are small in number, it makes sense to assume that there must be some continuity in the advising process between advisors and students from semester to semester. This assumption seems to hold true when the program is small and students and instructors get to know each other. The quality of interaction is enhanced -- more personalized. There is an opportunity for development of expectations, both for the student and the advisor that seems to add substance and to encourage continued interaction. In the larger programs, however, it seems to generally be true that the interaction tends to be friendly, but basically impersonal, with minimal expectations set up by either party. Frequently, who advises the students does not seem to matter much. The point is that someone does and meets the demands of the school for advisement. Concerning the lack of continuity, Dressel (1980) comments that

> the lack of continuity in advising contacts is a significant factor in student dropouts, discontinuities in attendance, and apathy about college continuation. College attendance, especially in liberal education programs, provides no clear goals and has no obvious relevance to the future. Advisors and students, recognizing the short duration of their contact, see little advantage in expanding it. Neither has any set of expectations for the other, and hence there exists no basis upon which the continuing advisor contact can become a mutual bond encouraging continuance (p. 260).

Our interview data suggests that many individuals who have low motivation or are experiencing difficulty in school have been positively influenced by an instructor (who may have been an advisor) who took interest in them. Someone, in a sense, whom they could perform for, who expected them to succeed. This experience provided the impetus for the continued struggle, which led to completion of courses, and for some, completion of the degree plan. Advisors, through continued contact with specific students during their educational experiences at the college, can serve the function of being a part of the student's support system. Further, if students need assistance that a counselor can provide, the advisor can encourage a visit to the counseling office. "Bridging the gap between today's specialization in counseling and the faculty-disciplinary orientation is the major challenge and task of advising " (Dressel, 1980: 257); Crockett, 1978: 33).

Another aspect of continuity of contact, that is important especially when there is no continuity, is adequate student profiles that are generated for advising and other college purposes. Since educational transcripts are not required until registration and new student orientation takes place prior to registration, educational transcripts rarely play any role in the advising of new students. Therefore, an important piece of educational data on the students is not available for use by advisors at the point of the student's entry into the college.

Departmental advising for currently enrolled or former students seems basically a similar process. Although departments keep student files, they are generally not used during advising (exceptions to this may be the smaller programs). Part of the difficulty in maintaining departmental student files and advisory continuity for that matter derives from the fact that students can take courses at all colleges in the District. There is no policy that stipulates that a student must return to the college of initial enrollment for advising, nor should there be, but the practice causes some problems. Student records, where maintained, are dispersed throughout the system. The District Offic[illegible]ntain biographical, educational background, and college grad[illegible] These are available to advisors and counselors, but it tak[illegible]imately two weeks after a request is made to receive the dat[illegible]. College basic skills assessments and other pertinent data are not a part of District records. But more importantly, they are not a part of any student records. These data are simply records in various departments.

Advisors (including counselors) apparently feel that they have adequate information on students, basically derived from the on-site advising visit. There has been no call for more complete profiles on students for counseling or advising purposes. This could be partially a function of the difficulty of locating the dispersed information and/or advising counseling strategies employed, i.e., the inclination of the advisor/counselor toward using such information in guidance.

Crockett (1978) states:

> Good advising is built on the premise that an adviser can never know too much about a student. The quality of an individual student's educational/career decisions increases directly with the amount of relevant information,information available to the student and the advisor. Students who make conscious and realistic career plans are most likely to persist. Therefore, all good advising programs have an information base for use by advisee and adviser during the advising process. This information base is often in the form of an advising folder supplemented by appropriate outside reference sources. A typical folder might include the ACT Student Profile Report, the high school transcript, a college transcript or grade slips, planning worksheets, an anecdoctal record of significant discussions, and other documents or materials helpful to the advising process (p. 33).

Preparation of Advising Personnel

In the introduction to the Student Services section, we indicated the historical precedents at the research sites for the inclusion of faculty as advisors. Jane Matson (1972) comments on this type of a decision:

> The assignment of prime responsibility for the academic advisement function to the teaching faculty remains a controversial issue. The practice of assigning staff as part-time teachers and part-time student personnel workers appears to be declining. But in many junior colleges faculty are given advisement duties in addition to a full-time assignment. A pendulum or cyclical phenomenon may be involved in this practice. In some of the newer junior colleges, faculty are asked to assume this counseling-related function on the premise that there is insufficient money or staff to do otherwise and everyone must "pitch in and help" in order to get the job done. As the college grows in size and budget, it is not uncommon for the advisement function to be shifted entirely to the counseling staff. The next stage of development occurs when the faculty are again given the responsibility for academic advisement. At this point the rationale is likely to be that this arrangement facilitates good faculty-counselor relationships, or that it improves faculty-student communication, or that it is impossible to maintain a reasonable counselor-student ratio without resorting to a faculty advisement system. The argument is also used that faculty are generally better equipped than the professional counselor to provide superior advisement service. Perhaps each of these is a reasonable hypothesis, but neither has been well evaluated and, therefore, remains merely an hypothesis with only vague and questionable data to support it. What is needed is a good evaluatuation study of the advantages and disadvantages of the use of faculty advisors in a variety of college settings. Until this is done, practice will continue to swing on a pendulum and will be justified on opinions, frequently more emotional than rational (p. 173).

Full-time teaching is a job unto itself. Adding advising responsibilities to it simply means that the instructor has no time for acquiring knowledge either about the advising process or the concomitant skills or the additional facts he needs to adequately advise students. Several counselors stated that their counseling programs did not provide training in academic advising because it was assumed that everyone knew how to do it. Since they had been through the process themselves as students, they should know what to do. They indicated that they have had to learn the hard way -- experience. While counselor inclinations by training would predispose them to consider the necessary functions of advising, they are most disposed to do this in a career counseling situation and even though the same basic skills are called for in both situations, they require different knowledge bases.

There is, however, no training in the dynamics of the process or concerning the knowledges that should be included in the process. Advisors and counselors frequently fall back on their own experiences as students in the advising process as models for action. Dressel (1980) comments that "repeatedly used techniques of orienting advisors through short-term workshops and arranging visits of businessmen to campuses and faculty members to businesses will not necessarily improve advising unless advisors also become aware of the career relevance of their disciplines" (p. 252). I would add that they need to become aware of both within discipline and between discipline relevance.

A study of student attitudes toward various types of advising systems was conducted by Bostaph (1976) in the undergraduate schools of major universities. The results indicate that students viewed their overall advising experiences as negative. This result was common across the three advising models in use at these schools. Model A hired full-time faculty advisors with no teaching responsibilities; Model B used a double board of advisors, students and faculty; Model C used only full-time teaching faculty. As a consequence of the results of the study, the authors recommend:

> To establish a high degree of commitment to the academic advising process, university and school administrators in higher level positions must become cognizant not only of the educational value of advising but of the role advising plays in the retention of students and in the promotion of the school's image to prospective students. In this regard, administrators might look more closely at instituting a three-fold management operation for actualizing the role of advising in their own particular schools through an adequate reward system, a viable in-service training program, and a developmental approach to advising (advisor development, our comment) (p. 47).

The access structure demands on the students: Basically, then, in order for a student to get advised, he must

1) Be present and persist
2) Express an area of interest, vague as the expression might be
3) Be in possession of the correct forms to be signed by the advisor
4) Be able to determine where he should go for advising, either by asking someone or determining the location from the information in his orientation packet or reading the posters on the college walls indicating advisor locations.

Student responses to access structure: The consequences of this seemingly haphazard approach to actual advising is general dissatisfaction on the part of the students who were interviewed by our researchers. The students who were satisfied said they were satisfied because they had little trouble seeing an advisor and were able to register for the courses they desired. The students who were not satisfied had the opposite experiences and also felt that they were rushed through the process. Many students considered that they had advised themselves, and the advisors simply signed their cards. Others do not even know that they have been advised, indicating they have never seen an advisor.

Several counselors in interviews reported that many times students come to a counselor for relatively mundane information that they could derive from a catalog (i.e., information about course schedules, which courses for which degrees, etc.). The question is why do students take time to see a counselor for this type of information? Assuming that the student has access to the written information required to answer his questions, several hypotheses emerge as possible explanations. (Several of these may need to be combined to explain some situations.) The list is not intended to present all possibilities:

(1) The student has simply been too busy to read the catalog (or other source of information) and wants to save time by having someone quickly tell him what to do.

(2) The student lacks confidence about his ability to interpret what he reads or to integrate the various bits of information into an action plan, i.e., derive degree requirements from the catalog, decide the sequence (if any) in which courses are to be taken, locate courses in the schedule and determine if and when the courses he needs are offered, and build a schedule that best suits his personal demands/needs.

(3) He is seeking confirmation of his understanding of what he read in the catalog or other written source.

(4) He is unsure of or confused about his goals

(5) He is seeking the personal contact with college personnel that he believes a counseling situation will provide.

Underlying these questions is the further consideration of the clarity of the written materials available to the students. One counselor pointed out that the catalog is not written in standard everyday English, but in what he calls "bureaucratic" English and that this makes comprehension more difficult. Readability studies of the catalog show it ranges in difficulty from grade 11 to 16.

Registration

Registration is held over a three-day period about a week before the beginning of classes. Unlike the pre-advising and new student orientations, registration takes place at a centrally-located city facility. Registration sessions are held during work hours and in the evening to accommodate those students who are employed during the day. Several thousand students are processed each day of registration, and the school attempts to avoid congestion and long waits by regulating the entrance of students into the facility by issuing time permits. These time permits are available at most admissions offices of colleges throughout the district, and are made available to students who have been pre-advised or attended new student orientation before they are given out to other students. This latter group includes those students who decide at the last minute to enroll in college and simply walk in to register.

Having acquired time permits, and having arrived at registration at the appropriate time, the students are allowed inside where new students are first confronted by a table bearing a large sign: "New Students Stop Here." If they have not brought a transcript, GED, or some other required form, they are asked to fill out another form: a "Notice of Missing Credentials(s)." All missing credentials are supposed to be turned in to the admissions office within 30 days of registration, or else a "hold" is placed on academic records (that is, the student cannot get a transcript and cannot enroll again in the college). Returning students must check at a specific table for "holds" as they enter the facility. Workers at this table said, however, that most students do not get their credentials to admissions within 30 days, but that most do get them in before the end of the semester and that this is also acceptable.

Students are then directed to an area in which there are a number of writing tables facing two walls on which are projected the section numbers of those courses which have been "closed." There are course schedules and copies of the "Student's Working Copy of Class Schedule" stacked on the writing tables. At this point in the registration, the students must fill out their course schedules. Of course, students who have been pre-advised, or who have attended orientation, have already taken care of this matter. For the students who have not already selected their courses and sections, there is a row of "information tables" staffed with seven to nine student workers. The official function of these workers was to give aid to the students in finding alternative times for classes which were closed. As one worker put it:

> When these courses start filling up, we're here to help students figure out what they're going to do. A lot of them have trouble reading the overheads, or they're just unfamiliar with this sort of procedure and they get all confused and upset about it...also we make sure that they're on the campus they want to be on, and that if they want a course at one particular time, that they're not registering for another time.

These workers also gave out subjective information about courses and were free with their judgments about particular teachers with whom they had had experience. As one worker put it, "Well, I've been here for a while. I've got sixty hours now and I know a lot about the college. So if I can answer questions about classes, I do." Furthermore, students who have been through the registration process, veterans of the process, were observed helping students who appeared confused.

The students pass through a checkpoint after filling in their course schedules and are directed to a semi-circle of tables staffed with counselors and faculty advisors, there to answer questions students might have about the various courses. Most often, however, these advisors and counselors simply sign the course approval space on the registration card and direct the student on to the next station. It seems as though the advisors are willing to advise, yet most everyone who came up to the tables already knew which courses he wanted to take. Those who did have questions asked such questions as how to find out which courses would transfer to four-year colleges. Those students who had been pre-advised, or who had attended new student orientation had already completed much of this process.

The students were to pass through seven more "stations" after having their course schedules approved. At each station, in addition to signs, there would be student aides to describe what was going on and to direct the flow of traffic through the facility. Students often expressed some dissatisfaction about the amount of time that the registration took (it could range from 45 minutes to nearly three hours), but there was surprisingly little confusion.

Late Registration

Late registration and Adds and Drops are scheduled at a centralized location for the district for two days following the beginning of classes. Registration for developmental classes, however, is open until the twelfth class day. This policy was instituted to allow both students and instructors some options for dealing with inadequate skill levels for courses. The transfers are processed with no additional charges to the students. We did not observe late registration or students transferring to developmental courses.

Discussion: The Registration Process

Although the look of registration procedures was chaotic and confusing, with lots of forms to fill out, the flow of traffic was fairly well controlled by numerous school personnel, who were also able to provide information necessary about the various activities. As to the forms, they were generally short and simple (large print, big spaces). The staff was helpful and friendly, if also hurried. As one observer put it, "there was a personal feeling" about the entire process -- a flexibility and altogether quite unbureaucratic atmosphere (due partly to the use of student workers).

We can say a little about the relationship of pre-advising to a "successful" (obtaining courses desired) registration experience by analyzing the results of a survey conducted at registration by one college (spring, 1980).

Question # 1 asked:

WERE YOU PRE-ADVISED BY A FACULTY MEMBER BEFORE REGISTRATION?

A. TOTAL RESPONDENTS TO QUESTION # 1			9,231
B. PRE-ADVISED YES OR NO:			
	YES	5,499	59.6%
	NO	3,732	40.4%
C. NOT PRE-ADVISED BY:			
ARTS/SCIENCES		849	22.8%
OCCUPATIONAL/TECHNICAL		1,622	43.5%
NON-DEGREE		182	4.9%
UNDECIDED		1,020	27.4%
INVALID MAJOR CODE		52	1.4%

Question # 2 asked:

WERE YOU ABLE TO REGISTER FOR EVERY COURSE YOU WANTED?

A. TOTAL RESPONDENTS TO QUESTION # 2			9,234
B. ABLE TO GET DESIRED COURSES:			
	YES	7,311	79.2%
	NO	1,923	20.8%

C. NOT ABLE TO GET....BY:		
ARTS/SCIENCES	472	24.6%
OCCUPATIONAL/TECHNICAL	877	45.7%
NON-DEGREE	70	3.6%
UNDECIDED	472	24.6%
INVALID MAJOR CODE	27	1.4%
D. OF THE RESPONDENTS WHO WERE ADVISED:		
QUESTION #2 YES	4,633	84.3%
QUESTION #2 NO	846	15.7%
E. OF THE RESPONDENTS WHO WERE NOT PRE-ADVISED:		
QUESTION #2 YES	2,676	71.7%
QUESTION #2 NO	1,056	28.3%

Because of their early time permits, students who were pre-advised were more likely to obtain all the courses they desired (84% did) than were students who were not pre-advised (72%); students with vocational/technical majors represented the largest group among those (45.7% of the respondents) who were not able to register for all the courses they wanted. However, we could not determine from the data available whether the vocational/technical students who were unable to register for the desired courses had been pre-advised or not, also whether they had arrived early or late in the registration process.

Some students who come to registration without the benefit of pre-advising or new student orientation experience the following situation:

> This fall (his second semester at the community college) I did not pre-register (there is no such thing as pre-registration he is referring to pre-advising whenever he uses pre-registering). You know what blew my mind? I went about a month before registration, to the office here, to get a time permit and I said, 'this permit is for the last day, don't you have something earlier?' The man told me that as soon as classes end in May people are in here getting time permits. I got stuck with the last day of registration. So sure enough I went to registration--three days of a thousand students ahead of me grabbed the courses that I wanted. So I couldn't get into the courses that I wanted. So I couldn't get into any kind of psych class; I wanted to get into the second part. They were all full. Couldn't get into a French class, algebra class was all full. They had other math courses but they were not transferable and I didn't want to just go to a business math class that wouldn't transfer.
>
> When I had only ten hours on my little card at registration, I was just freaking out, I was running back from place to place to see if I could get in this course. So I just kept going back to the same lady, the counselor, and saying 'I've struck out again. I have to have more hours, this is getting ridiculous.' I don't like the fact that I couldn't get into four courses that I really wanted to take for extra hours.

It would seem that the later in the process that one attempted to register, the harder it would be to register for the desired courses, if they are in great demand. Since many vocational/technical students work during the day and arrive at registration after working hours, this might account for no pre-advising and reduced course options. However, since the community college has flexibility in opening courses, both from the administrative mechanisms and from the supply of individuals seeking work at the college as part-time instructors, this phenomenon needs further consideration.

Late Registration

The policy (instituted in the spring of 1980) that allows students to transfer as late as the twelfth day to developmental courses without penalty acts as a mechanism to allow students who -- (1) were not pre-assessed prior to enrolling but now find they are unprepared, (2) were pre-assessed but chose to ignore recommendations, (3) have found the instructor considers them unprepared to do the work -- to consider developmental course work as a means of preparation for college level work. It also allows instructors time to diagnose their students' skill levels and to recommend remediation to students, where appropriate. It is our impression that this mehcanism is not widely utilized and that instructors do not generally diagnose students' skills at the beginning of classes.

Summarizing the registration process: The fact that large numbers of students (3,700, plus late registrants) are allowed to enroll without advisement raises further questions concerning the institutions belief in the importance of academic advising. Although in many instances, it could be said that there is no difference between the superficial "rubber stamp" advising at registration and that that takes place during New Student Orientation and advisement of enrolled students. The fact that students indicate they have never been advised may reflect their idealistic concept of advisement compared to what is practice.

The Access Structure Demands on the Students: Basically, then in order for a student to get registered, he must

1) Comprehend either the written instructions or the verbal instructions of registration workers in order to fill out the required forms or to accomplish other required tasks.

2) Read the course schedule or ask for help from registration workers and understand the responses to their questions or persist until they understand or someone takes them by the hand.

3) Persist. Willingness to get through the process even when it takes a long time.

4) Faced with having to transfer to developmental courses after enrolling for college level course work, students must be willing to accept their need for remediation. This further requires
a) an attitude that allows them to enroll in developmental course work; or

b) a belief that through hard work they can overcome their deficiency on their own, or that they can do so with the help of instructors and/or tutors provided by the college.

Student Responses to the Access Structure: Registration is required for college attendance. There seem to be few real obstacles to college enrollment -- the college seems to provide adequate support staff to verbally assist and direct students through the registration procedures. Students who seem lost are spotted and assisted by both college personnel and other students who have been through the process and are happy to be of assistance.

Students who were unable to register for desired classes were the most dissatisfied with the process. We were not able to determine how many of these studetns did not register as a result of this problem. However, given the fact that some students enter the college only to take a few courses and that others have requirements they must meet for graduation/certification or jobs, the consequences could be student decisions not to enroll. The next decision is whether to attempt registration again next semester or to go elsewhere, or not to enroll at all.

The Counseling Function

When the enrollment process is completed, students continue to use the counseling and advising services of the college. Counseling interaction is officially categorized into three components: academic, career, and personal. In the following discussion, the counseling function as it operates year round will be discussed from the point of view of interviews with counselors and students, since we were not able to observe any counseling sessions.

First, academic advising--other than course selection--will be considered. Career counseling is the next component, including the special needs of occupational and academic/transfer students and the career choice course in the Human Potential Department. This will be followed by a description of personal counseling and the personal development course in the Human Potential Department. The direct-indirect access structures of human potential classes is the closest we came to observing a counselor-student counseling interaction in the career and personal categories.

The Counseling Categories

The "Faculty Advisors' Handbook" describes the counseling interaction classifications as:

> Academic Advising: We have a diverse student population. Some of our students have made well-informed considered choices when they selected their degree plan. In these cases, the academic advising process provides the advisors an opportunity to maintain meaningful contact with their advisees and to monitor students' progress. Many other students may have made hasty decisions (or no decision) and may need special assistance as they develop their immediate academic objectives within the broader scope of a life plan. It is rather common for these students to change majors and to change more than once (p. 30).

The description does not include an important aspect of problems/concerns that in practice both faculty and counselors include under academic advising--student problems in the classroom concerning some aspect of their performance in the course(s). This is the focus of academic advising in this section.

> Career Counseling: Those students experiencing difficulties in making career choices and setting goals for themselves can be referred to a counselor at any campus for assistance in their career planning process. The techniques and tools utilized include values, interests and skills assessments; research of occupational informational materials; informational field interviews; as well as standardized personality, aptitude and interest inventories (p. 30).

> Personal Counseling: Faculty may encounter students who are having difficulties in handling their lives in some way. In the counseling offices we see students with a variety of personal or social concerns.

> Some of the more frequent difficulties include the following: students who are having trouble organizing their lives, people who are depressed, those who have anxieties about college, those who have personal complaints against the college, people having problems with relationships. We are prepared to do family counseling, bereavement counseling, counseling with people who are single again, who are single parents, etc. Students may be referred directly to the Counseling Services, or the advisor may want to contact a counselor to discuss how best to approach a student who needs referring (p. 30).

The descriptions seem clear cut; however, frequently when counselors or advisors take time to make inquiries concerning the situation that has brought the student to them, the classification lines blur. Some faculty attempt to handle the situations themselves, but most feel ill-prepared to do so. Referrals to counselors often come from these situations. Although the numbers of referrals are not large, counselors indicated that they are increasing as a consequence of liaison efforts.

Academic Advising--Student Academic Performance in Classes

There seems to be a consensus among counselors (verified by administrative records) that students most often seek out counselors for ostensibly academic concerns that frequently are symptoms of personal difficulties. The formats of problem presentation vary, for example:

--I want to withdraw from a course and I need to know the deadline for withdrawing.
--I've been taking physics and chemistry and I'm three tests behind.
--I'm not doing very well in my course work. What can I do about it?
--Can an instructor drop me from my English course because I can't write?
--My instructor told me that I am going to flunk the course. What can I do about it?

The basic underlying philosophy for dealing with these types of problems is summarized by a counselor's statement:

> The counselor's role with respect to students with academic problems is first of all to help them clarify the problem--to help them identify if in fact there is a problem, and if so what it is. It's helping _them_ clarify it--not the counselor telling them what the problem is, and then working some action plan to remove it, either to look at study skills or time management, or make a referral to developmental studies, if it's a skills need.

However, bearing the counselors' philosophical orientation in mind, there are two other approaches that are sometimes used in tandum with a student-initiated visit: (1) ombudman's interaction: student-instructor-counselor, and (2) instructor-counselor interaction, without the student present, but with his permission. (We have no data on the frequency of usage of the types or on the generalizability to all counselors at the research sites.) Generally, there is insufficient data to do justice to an analysis of these types of counseling interventions. This researcher's perception is that the counselor-student type used alone is the most prevalent. However, some interesting questions arise concerning the strategies: What are the values, including educational training, that might predispose counselors to use the counselor-student approach? Do these constrain the use of other approaches? What are the benefits for all concerned of expanding the intervention strategies? Some of these questions will be explored below.

Discussion: Some Issues Advising Students on Performance Problems

The philosophy expressed in the counselor's previous quote expressed the value of decisions reached by the client. The counselor is supposedly non-directive, assisting the student in defining, clarifying the problem, and looking at alternatives for movement toward resolution. The process further implies that the client is to carry out the action plan, mostly with moral support from the counselor. However, some counselors indicated a somewhat more proactive involvement: making a phone call for the client to set up appointments and at times taking a student to the developmental program personnel and introducing him to someone there. Generally, though the student is expected to follow up the action plan of the counseling session on his own. He is responsible for his own decisions and actions.

While the principle is valid, there are fallacies in the assumptions. Every client is not able to follow-up on an action plan--even one that is very explicit. And most counseling sessions, according to counselors, are one-time events that do not provide for sharing of the outcomes of client efforts to resolve his problems. Following up on an action plan requires various combinations of the following:

1) a belief that the action will resolve the problem or provide information on which to base decisions.

2) a willingness to do what it takes to resolve the problem.

3) confidence in one's ability to carry out the plan.

   a) to physically locate the resources: individuals or the written resources that can provide information.

   b) persistence until one understands the verbal response or the written message.

4) ability to determine if one has sufficient information or what else is needed and where to start to get it as one works through the process of data gathering.

5) ability to determine what information is pertinent and which is superfluous.

6) capability to apply information to the problem solution.

7) ability to determine when further assistance for problem-solving is needed.

8) willingness to seek assistance when needed.

9) ability to find assistance.

Some counselors complained that students did not follow up on the things they needed to do to help solve the problem. These counselors indicated that students wanted someone else to do the work and tell them what to do, i.e., to have ready solutions for their concerns. And, indeed, from interviews with students, we discerned an expectation that college personnel should have ready answers. It seems that these students' experiences in problem-solving fell into several categories and that the career-school category had antecedents of being told what to do. Either these students do not see the relationship between problem-solving in everyday life in which they took the primary responsibility and the situation at the school setting or they basically operate in a semi-dependent mode by following a set of instructions which they believe to be worthwhile because experts have put them forth.

It may be that the problem of effective counselor intervention is not adequately defined. Maybe it is not so much an unwillingness on the part of the student as an inappropriate expectation based on students' past experiences and a lack of skills and conceptual frameworks for problem-solving. The process implicit in counselors' values is not made explicit--the modeling process fails. Students may need explicit exposure to the heuristics of a framework for problem solving. The counselors' assessments of the students' skills and confidence in carrying out the action plan is an integral component of the action plans for problem solving. This assessment should assist the counselor in determining the types of follow up that each student requires. The monitoring of student efforts is critical in the building of confidence and ability to utilize frameworks for problem analyses and resolution. Counselors' values, beliefs, attitudes about adult responsibility may be blurring the need to teach students in an explicit manner, the attitudes and skills that enhance responsible action.

The philosophical orientation seems to suggest a general constraint on employing third party or counselor-instructor approaches. However, the state of the art of student problem solving and implementation skills, as indicated above, would suggest that third party roles could provide some important foundations for student action plan implementation. These types of interventions also serve to provide feedback for instructors on various aspects of the instructional and interpersonal aspects of the classroom. Aspects that are of concern to instructors but which they frequently do not know how to handle, i.e., how to deal with or what to do with students whose skills levels are inadequate for the course, student personal problems, etc. The counselor, in turn, can utilize another proactive strategy to gain two of the most important resources for increasing counselor usage: satisfied students and instructors. The liaison/consultant roles described in the early part of this section require the instructor to present the problem to the counselors. The approaches discussed here use the student's specific problems and perceptions as information to be shared with the instructor. The student's problems may not have come to the attention of the instructor and this approach might be useful in this regard. These approaches could build a support system for instructors (and students) for expressing, exploring, and improving concerns about instruction.

Career Counseling

This section will describe the one-to-one career counseling services and will include interpretations and discussion that anticipate the analyses in the next section on human potential classes.

Counselors describe the difference between academic counseling--course selection--and career counseling as the difference between advising limited in scope--what students are going to take next semester--and that which has broader implications for a person's life; career counseling is more than preparation for a job, although that is part of it.

Students can learn about the career counseling services from the college catalog, from the slide-tape show at orientation, from counseling literature, from faculty advisors, from the human potential courses and from other students. Also the career centers are located in areas of heavy student traffic. Students become involved in career development activities by choice.

Counselors in Career Counseling Interactions

According to counselors, their role is not to tell the student what to do, rather it is to listen to the student talk about desires and interests and to draw out of this context what the student is saying (maybe in a round-about fashion) about hopes, fears, ideals, etc. The counselor than paraphrases and interprets for the student what hears. The counselor can then offer options for the student to consider in obtaining those desires. The student is strongly encouraged to take the responsiblity for his own decisions--sometimes over the student's protest.

Counselors have available values, interests, and skills assessments, research of occupational informational materials, as well as standardized personality and aptitude inventories with which to aid the student in considering a career path. Other considerations mentioned by counselors are how much training or education a particular career path requires and what the job market is like. Faculty are also involved in career counseling, according to student reports of influence on their decisions by faculty who were willing to spend time sharing with them information about the world of work.

The process of career counseling is partially illustrated by the following scenarios provided by counselors. In the first one, the student seems to have the ability to achieve his goals, but is uncertain as to the career he wants to pursue.

> This student had been thinking about business school, going on to a four-year school; thinking about law school eventually. He didn't know whether he wanted to do one or the other or both. I interpreted his interest inventory and had him explore requirements for both an MBA program and for law school. Also the possibility of a combined degree to pursue after the B.A. was achieved. He felt more secure about wanting to do one of those three things, but still did not know which one. But in the meantime he was able to decide what he needed to do say over the next three years to prepare for whichever

> one of those he decides to do. He combined the MBA requirements with the law school requirements and followed that program.

The following scenario depicts an older adult attempting college for the first time. The career options she perceives are very limited.

> Someone comes in and says that she'd been a housewife for 25 years and really wants to get out of the house. She'd been thinking about being a secretary. I'm playing back a tape in my head, videotape of a person who said that to me last week. And I said 'A secretary? Why a secretary?' And so we talked about that a little bit, but I got a real low affect; I got a real flat feeling from her. For anything...total. Everything we talked about, real flat tone, not much expression in her face and the way she had of carrying her body made her look like a very old lady.
>
> I asked her about her family, how many kids she had, how long she had been married. She looked at me like 'Why is this important to you at all?' And then I got into what is fun for you? What do you like to do that is fun? What she ended up deciding was she probably wanted to be a social worker someday. She had another profession to play with beside the idea of being a secretary. She went out with a smile on her face. And it looked like it hurt, cause she hadn't smiled in a long time. But her concept of herself was that she couldn't do anything. I got that from her body language. And when I honed in on that she owned being somewhat depressed. Hell, she'd been depressed for a long time. So when we got into something that really excited her, she responded.

The last example illustrates a student who has decided on a career path based on knowing someone in that particular field.

> You get someone who says 'I want to go into education, teaching' and I'll ask 'How do you know you want to be a teacher?' The response is that her aunt is a teacher. and I'll ask 'Yes, but how do you know you want to be a teacher?' The response is 'It's all I ever thought of doing.' Then I'll suggest the Strong-Campbell Interest Inventory. It might support a choice of teaching, but it well could suggest other things...broaden her thinking about options.

The scenarios illustrate that career counseling is not a one-shot affair. It requires an investment of time and energy both for the counselor and the student--of searching, analyzing, and synthesizing of information--that could evolve into a semester-long relationship.

The last two examples illustrate the beginnings of some career counseling sessions. We have no data on any follow-up visits that would provide material for further analysis of one-to-one career counseling.

Discussion: The Issues in Career Counseling

At least 50% of the students enrolled at the colleges under investigation have not officially declared a major. In addition, students with declared majors also may face problems with career choices.

> Many students sent to college by their parents are told to major in engineering' (for example). Such students frequently realize after the first semester's midterm exams that this major is not for them, but they do not know what is. Some students make premature commitments to professions, only to realize that the preparations and realities of those professions are not congruent with earlier fantasies. These problems add to the numbers of students who need and demand career counseling (Gardner, 1981: 67).

Counselors, at the research sites, were aware of the above dilemmas and also aware that more than one-to-one strategies were necessary. They developed workshops and courses to assist students in working through career issues.

One-to-one Career Counseling and Group Career Counseling

One-to-one career counseling is extremely time consuming. And there is evidence that "participation in systematic learning experiences focused on career development in courses or long-term seminars make greater gains in self-knowledge and career planning than one-to-one counseling" (Daniels and Buck, 1981, refer to Babcock and Kaufman, 1976; Evans and Rector, 1978; Smith and Evans, 1973). The same core elements of career development programs are found in both situations: (1) self-assessment (clarification of values, attitudes, interests, experience, and skills), (2) assessment of the job market, and (3) a review of assorted job hunting techniques (Daniels and Buck, 1981: 53). One-to-one counseling has the initial advantages of the student's motivation in seeking the assistance and the opportunity to draw a shy, reluctant student into conversation, through skillful questioning and interpersonal skills of the counselor. It is a tremendous opportunity to encourage the student to persist in a valuable undertaking and to paraphrase or reflect beliefs, values, attitudes, interests that derive from conversation. This information is extremely valuable to the counselor in determining the kind and amount of assistance the student will need. From this point on, however, it seems that many (although not all) of the activities of career exploration could more effectively utilize a facilitator's time in a student group context.

Career Counseling in Occupational Programs

The counselors report (and some student interviews confirm) a poor image of counselors resulting from occupational students' negative experience with high school counselors. College counselors are, therefore, viewed with some suspicion partially because

> In high school, a lot of times the students causing discipline problems took a shop course. The reason: it (behavior) didn't

> disrupt the other classes. That is really an overriding negative point...and it's a real sore spot for all the instructors in the occupational areas because that's not the student that we cater to here.

One counselor's perception of the effect of such high school counseling is that some students register for the vocational/technical courses because "it's what they've always taken." It seems logical to assume that these students need, at the very least, career counseling in college because they might be closing off potential options for other career choices by sticking to what they were trained in in high school. Also, since many of the students in occupational programs either have worked in the field of their major or are currently employed in that field, according, to one counselor, there is the erroneous belief that:

> There's really no need for counseling in these areas, because someone's majoring in welding, they're going to be a welder. So there's no problem there. They do not need career counseling.

While the same may be said for academic/transfer majors, it seems a narrow view of the function of work in fulfilling the personal needs of students.

> A large literature in the social sciences suggests that a career choice is a very personal expression of the complex human personality. If work is to be a continuing source of intrinsic satisfaction, it must involve significant segments of the individual's system of needs, wishes, and aspirations (Katz, 1968: 219-220).

Furthermore, there are many different types of "welding" (or electronics, secretarial jobs, etc.) that an individual with basic technological skills can perform. What are the choices? Which of the myriad of choices will best suit the individual? How many individuals make one of the most important decisions of their lives--choice of career-based on limited information? Career choice is a complex issue involving personal values, real-world economics, and individual ability (both self-perceived and demonstrable to employers, credentializing agencies, etc.). The fact that a student is majoring in "welding" might prevent the consideration of other important related work/personal issues that career counseling could help to surface.

Career Counseling in Academic/Transfer Programs

Distinct from the special problems that occupational students have in career/academic counseling are the needs of the academic/transfer students. As one English instructor remarked, "There are no jobs in this field." However, considering the growing demands in the world of work for academic credentialling, these degrees do increase an individual's marketability. As associates' degree appears to be one notch higher, in employer esteem, than a high school diploma. However, the educational experience of a person with an academic associate of arts or sciences degree may be considered largely irrelevant to unskilled or semi-skilled jobs. Speaking pragmatically, career counseling for people who have academic majors is either advising about courses that are needed to get the degree and/or information about courses which transfer to a four-year college. The latter option seems more realistic. Without advanced degrees in most of the humanities, fine arts, or pure sciences, students cannot expect employment in these areas. This means that the counselor or advisor has the task of informing the student that he is at the beginning of six or more years of an educational credentialling process to achieve the goal of employment in his chosen major. However, the job market in some of these disciplines will prevent these students from finding employment in those areas. The chapter on the Accounting Program presents evidence that some students with bachelor's degrees in fine arts, English, etc. are returning to school to acquire degrees in business-related areas because they cannot find employment in the area of their original degree.

Concluding Comments on Career Counseling

Dressel's (1980) comments on some institutional mechanisms for career exploration add a systemic component to the analysis of career counseling:

> Because the department is regarded as the unit for offering both courses and programs, and a liberal education is erroneously thought to be attained by taking courses distributed over several disciplines, attempts to solve the career development issue have almost invariably involved add-ons. Special courses on career development, expansion of the placement office, adding a vocational counseling office, and the preparation and dissemination of vocational materials exemplify the add-on approach. These additions increase costs but accomplish relatively little because they do not solve the problem of relating a liberal education to the world of work (p. 259).

Conversely, vocational education does not relate the world of work to liberal education. The students in career exploration class (see next section), in critiquing the course, seemed to be alluding both to the issue that Dressel raises and to its corollary. The students had acquired some useful information and techniques for analyses and decision-making relating to the world of work, but they wanted to know its relationship to the educational process in which they were engaged: How should they proceed with program and course selection? These issues were not addressed. The format of the course utilized a process which did not include these elements.

There are a few models of career development which can help to overcome the add-on perceptions (see New Directions for Student Services, #14, 1981)--to integrate institutionally-based higher education processes with the career and life decisions of students. But it seems that the problem is not so much with the models available as with the processes that do not have these integrative mechanisms to provide the rationales for the studies which the students must undergo to achieve their career/life goals.

The Human Potential Classes: Career Exploration and Human Development

Prior to September 1978, a course dealing with personal growth was offered for one year in the Psychology Department and workshops on various personal growth topics offered through the Student Services Department. These instructional efforts were unified when the Human Potential Department became a reality in September 1978.

These courses are still considered to be in early stages of development with new topics added as the need for them arises. The heterogeneity of the student groups (age, backgrounds, ethnicity) who enroll for these classes, as well as the reasons for taking the course contribute to the changes in instructional activities and approaches which the instructors must make from semester to semester to attempt to accommodate the diverse student needs.

We selected human potential courses to study literacy development because (1) these courses, while not intended to be group counseling sessions, might provide an approximation of various scenarios and interactions of one-to-one counseling situations; (2) all but three instructors of these courses (during the observation period) are counselors at the college; and (3) the varied but personal nature of the subject matter of the courses lends itself to counseling followup.

Researcher Entry into the Human Potential Classes

Researcher entry into these classes for observation merits some discussion because of the requirements levied on us. Observation of these classes, especially if observers were to drop in irregularly, was not taken lightly. The concerns voiced related to three basic elements: (1) class approval of researcher presence (not a unique requirement of these classes); (2) all members' (including observers) participation in activities of the class; and (3) regular attendance. This required a participant-observer role--one not used in this project heretofore and commitment to semester-long attendance. We agreed to the terms, received class approval and started the semester in two personal development classes and one career choice class.

Due to unanticipated circumstances, one of the researchers in a personal development class departed from the project and the responsibilities were assumed by another observer. The change in research personnel was not an entirely smooth transition. The personal development class involved refused to take on a new person at this late data in the semester. However, a replacement class was found and entry made over a month after classes had begun. The same career choice class remained a part of the study, however.

Student Reasons for Enrolling in Human Potential Classes

The personal development class credit is transferable to all colleges in the locale and the career development class transfers to most, but not all. There are, however, some complications to transferability. Certain degree plans (especially the hard sciences) allow electives only in certain areas and human development is not allowed. Therefore, an informed student may have one or more of the following reasons for taking these courses:

1) Personal preference regardless of transferability

2) Required by degree plan at community college (i.e., data processing

3) Transfers as a free elective in degree plan

4) Needs/desires to register for certain number of hours (financial aid, etc.). The human potential classes were some of the few classes still open for student registration when other classes they desired were closed.

Of the students in the three classes observed, only one indicated item #1 as the primary rationale for taking the course. Six indicated item #2; one item #3, and twelve item #4. The reader should bear in mind that combinations of these reasons were frequently part of the student responses when asked about reasons for taking the course. Many students mentioned that the content of the course, upon reading the description and/or hearing about it, sounded interesting.

The class to be discussed in this section on career counseling is the career exploration course. The personal development course will be discussed under personal counseling situations. Since we did not observe other human potential classes, these courses cannot be considered representative of the program. In discussion with some instructors of the human potential classes, however, they acknowledged the generalizability of the issues present in the study of these two courses.

Career Exploration

The course instructor selected Richard Bolles' process model for life planning/career exploration as the paradigm for structuring class activities and content; supplementary handouts (both readings and exercises) complete the course materials. The course purpose, objectives, expected outcomes, and standards for success (from the class syllabus) are presented here.

Contents of the Syllabus

Purpose of the course: For each student to organize the goals (career) he wants to accomplish and how to take action.

Objectives of the course: To gain competence in four areas (1) Life/work planning, (2) self-understanding, (3) researching, and (4) getting it together.

Expected Outcomes: Demonstrable Competencies. (1) Making life decisions based on a planning model; (2) Communicate more effectively with others; (3) Identify your skills, interests, and values; (4) Research career fields and jobs you want to learn about; (5) Implement your personal job search campaign; (6) Interview with effectiveness and competence; and (7) Write a functional resume.

Standards for Success: The letter grade you earn will be based on the effort you put into your career search and not based on comparative criteria. For a grade of "C", you must demonstrate competence in each area listed:

Attendance--Since we will be working from a group basis to learn about ourselves, attendance is imperative. We will not play the excused/unexcused game. Automatic withdrawal after six absences.

Class Participation--Physically attending is a beginning. For a group to function, a keen awareness of what is happening at each class meeting is essential.

Quick Job-Hunting Map--Identify, categorize, and prioritize the skills you enjoy most by completing the map. The "what" of life/work planning.

The Flower--Exploring six "where" questions gives direction to usage of your skills and forms a picture of the job you are looking for.

Informational Interviews (two of them)--These interviews will give you practice talking with people in a non-job, low stress, practice situation. This is the beginning of the "how" phase.

Resume--Your skills will impress you when you see them on paper.

Job Interview--A video-taped mock interview allows you to rate your skills in communication.

Personal Growth Paper--Review, analyze, and make a statement on the personal growth you have experienced this semester.

For a grade of "B", do a Book Report or Oral Report in addition to meeting requirements for a "C".

Book Report (written)--Making a book report includes briefly summarizing the material, giving your opinion, and relating what that material means to you in your career search.

Oral Report--A fifteen-minute presentation on a job, industry, or career field of interest to you.

In addition to showing competence for grades of "C" and "B", this additional work must be done to obtain a grade of "A".

Project--Now that you have completed an assortment of tasks and established a path to follow, how will you take action? What specific things are you willing or unwilling to do? What is your strategy for pursuing your career?

In addition to the above class requirements, a laboratory is also required. The students were provided a list of the minimum amount of time to be spent in each lab activity. Total lab time is 16 hours.

The Students

Originally there were 12 students enrolled. The breakdowns are as follows:

3 Black males	2 Black females
7 Anglo males	0 Anglo females
0 Mexican-American males	0 Mexican-American males

Within the first month and prior to the regular observation of this class, one Black female dropped the course. Ten weeks into the class an Anglo male dropped because he determined, by talking to a counselor at the college to which he wished to transfer, that the course did not have transfer value there. This left ten students: nine males and one female. (According to the instructors of these classes, this was an atypical class because females usually predominate.) Attendance was erratic, but none of the students were dropped by the instructor and none initiated drop procedures themselves.

The Class Sessions

For the most part, students in this class were very quiet--attentive, but unenthusiastic. The instructor attempted to motivate the students to respond and interact by providing examples from his own experience and through general questions the students could answer from their own values, experience and/or knowledge. At one point, the instructor felt it necesary to talk to the class about his perception of their attitudes. He indicated that if individuals in the class were going to derive anything from it, they needed to put forth some effort; he could not do it for them. However, there was not much change in the class until about three classes before the end of the semester.

The student who dropped the class early in the semester was one of the few who stated in an informal conversation that he spent a considerable amount of time constructing his responses to assignments. He worked hard in all his classes, wanting to get the most from the experience. Some students in the class were observed scribbling hastily in the student lounge before class or in class during the exercises to complete that day's assignments. It become apparent from the small group discussions that part of the difficulty in completing assignments involved ambiguity about how to derive skills from the event analysis (events in their own lives selected by the students to describe/identify skills they exhibited in the situations). Even though the instructor provided a model during the class that should have served as a guide, the students were uncertain about how to complete the assignment. However, there were no questions asking for clarification.

However, by the third class session on skill exploration, students were responding with more confidence, although not enthusiastically. Some of the events the younger students chose to report were persistence in learning to play the guitar, volunteer work for public television in a telephone campaign, etc. The two older individuals (they were over 40--a Black male and female), however, had qualitatively differeent experiences to relate. Their experiences and concomitant skills seemed to be an eye opener for the class, and heightened respect for these individuals became apparent as they related their experiences. Below is a partial recount of the class session from observation notes. (The student names are fictitious.)

> Next it is Lulu's turn to talk about a successful life experience from which she will extract skills. We had not heard her speak in class before. She had been finishing up her assignment as the others read their events for the class. She now launches into a description of a hugh dinner she planned, organized and

> cooked for 500 people. She was the cook at a residence hall for males at a nearby university. (All students are sitting up and listening intently and obviously impressed as she describes the skills she thinks it took to accomplish this feat.) She had to hire people (determine how many to hire to both cook and serve the food); she had to prepare the menu, buy the food and tell people how to prepare it. She had to prepare the hall for serving and design the centerpiece, etc. Someone in the class tells her that she missed the skill of sampling food.

Lulu stimulated another interesting experience for the class. She tells them, at the instructor's request, that she has had to quit her residence hall job because of health reasons and is taking secretarial courses because she needs a career change. During the semester she has been looking for a job as a secretary. When she applied for a job a week ago, she panicked when she saw the question about skills. Then she remembered what they had been doing in class. She listed all those skills pertinent to the job that she had derived from the event analyses requested for class. She got the job on the spot. The interviewer was so very impressed with her skills. Lulu indicated to the class that she would not have gotten the job if it had not been for this class: she would not have distinguished herself from other individuals who could type in anyway that the interviewer would see the value of hiring her over someone else. She also told the class that the interviewer did not really know how to conduct an interview. Lulu took charge of the situation and directed the interview, as she had learned to do in this class. Her experience reinforced the usefulness of the class for a job seeker.

The next class session used a teaching film to depict two different interview approaches. The students became really involved in the discussion about the film. They drew on their own experiences in interview situations, as well as on their own values to critique the approaches. Critiquing others seemed both natural and, in this case, safe--it was only a film. The class exchanged comments with each other and the instructor in a good natured fashion.

However, while the interactions were picking up, this did not seem to affect class attendance...it remained erratic. The discussions, on occasion, in this latter period, were more along lines of values and attitudes concerning marriage and relationships. The fact that this was an all male class at these times allowed discussions that might have been awkward had females been present. The students seemed to be feeling more comfortable with each other and with the instructor's easy-going style. This was most evident in the final class. (Again, observation notes are used and names are fictitious.)

> Lulu and Horacio are not here today. So eight people are present. The instructor talks to the class about the fact that this course will be useful to them at some point, even if they do not perceive it to be useful now. He asks 'Did you find it useful?' The response is unenthusiastic. Esequiel says he would have liked more group work...he felt like this had ended up being more of a traditional class than he had expected. Esequiel would have liked getting to know his classmates--what they were doing, and how

they were looking at possible careers, what careers, their questions about it...more or less an experiential/vicarious process.

Lanto tells the instructor that he liked learning about how to do a resume. The instructor keeps asking about the skills identification part,'Didn't they find that helpful?' No response. 'Well, was the course as a whole helpful?' Helburn says he feels a better sense of direction in school; Jeremiah says the course helped him write a paper for his English class. Sparky, Bo, Billy Joe Bob, and Smacks are undecided majors and they indicate the course hasn't been much help yet. They all want to own their own businesses--be self-employed. Smacks and Jeremiah indicate they expected to get more about what school is used for in getting your career launched. They wanted to focus on the school situation. They felt the class actually considered helping people get a job; most, of them, except for Lulu, were not interested in that right now. They wanted to get on with how to get the degree, what to do.

The most vocal of the students, Esequiel spoke up: the assignments out of the book were relevant...he did his assignments last minute. They were not important. Esequiel felt confident that the instructor would not hold any of his honesty about the course against him. One of his classmates, however, told him to be quiet because his grade was on the brink. Esequiel disagreed. Spanky says thank you to Esequiel for saying what he did because they are his sentiments exactly. Bo and Billy Joe Bob indicate that they really liked resume writing. They now have a decent resume which they would not have if it had not been for this course.

Every student indicated that the class would have been much better if there had been some attractive females present to lure them to class.

Discussion: Issues from the Career Exploration Class

Life begins after college...an attitude that was prevalent in this class became apparent during analysis of class observations. Although the class had some very useful information and activities for the students, a major problem was that it was not immediately relevant to most of them. The focus was on getting a job, albeit not just any job, but a job that would be selected by the individual as meeting many criteria of career and life goals. Most of the students were already working at jobs that simply provided sustenance while they went to school. Jobs that fit the criteria established in class were something to be attained after graduation from college. The instructor was not able to convince the students--provide them with adequate rationales--that there might be jobs that they could seek (and in some sense create) that would enhance career and life goals. He could not convince them that working while in school did not necessarily have to be a "marking time" stage, that clarity about goals, values, and skills could help make the condition of working while in school a valuable learning experience that enhanced career/life goals. In this sense, the students' perception was "life begins after college."

The student for whom the course was the most relevant provided evidence that course content was extremely beneficial to job seeker. Therefore, sex, age, and ethnicity did not seem, in this case, to be important variables in usefulness of the course. The important variable was immediate relevance. Although the material was interesting and its usefulness acknowledged, the students seemed largely unmotivated to become involved.

(Having been through a workshop using the Parachute process at a time when the material was not particularly important to me and not being particularly impressed with the activities myself, I can identify with the students' situation. However, about six months after attending the workshop, I had to fill out an application for a fellowship that required me to process the same types of information in order to respord to the questions. The fact that I wanted the fellowship forced me to attend to the partially answered questions of life/career goals. The workshop materials were then a valuable resource. This experience provided me an experiential process through which to view the processes of the class.)

A conclusion derived from consideration of the class response to the course is: homogeneous groupings of individuals based on similar information needs would increase student involvement through relevance of course content. Homogeneous groupings of students could be accomplished in a number of ways according to Daniels and Buck (1981).

Categorization of students by demographic data. This scheme would group students according to appropriate factors--by discipline, undecided majors, liberal arts majors, midlife career changes, etc. Categorization by personality characteristics. This scheme would require the use of some sort of personality inventory. "Personality variables such as level of self-esteem, clarity of identity, decision-making style, and state and trait levels of anxeity all have implications for the degree of effectiveness of career development interventions" (Ibid., p. 54). Categorization by process characteristics. Variables to consider here would be degree of career decidedness, stage of career decidedness, stage in the career decision-making process, degree of satisfaction with career decisions to date, learning style, decision-making style, and degree of progress in relevant life-stage developmental tasks (p. 53-54).

Categorization by process characteristics, in this particular situation, would have provided a range of intervention strategies that would have been more appropriate to the students' needs.

The Access Structure Demands on Students. The class provided a model that included two of the core elements of career development programs: self-assessment and a review of assorted job-hunting techniques. The job market element was not addressed in the course.

All students met the criteria for a course grade of "C". This implies that they:

1) attended and participated to some extent in the class discussion and activities.

2) completed the required writing tasks, even if the thought given to the assignments was minimal.

3) read enough of the text and handouts to complete the assignments.

(Twelfth grade reading levels were the maximum reading level requirements.)

Since the following discussion will refer to the cognitive and affective domains of the learning hierarchy, a brief summary will be provided from Hanson (1981). Bloom's taxanomy (1956) groups cognitive behaviors into six categories ranging from simple to complex.

Level	Cognitive Behavior
Knowledge	Remembering, memorizing, recognizing, and recalling
Comprehension	Interpreting, translating, and describing in one's own words
Application	Problem solving and applying information to produce the same results (as the model one is working from)
Analysis	Breaking something down to show how it is put together and finding the underlying structure of information
Synthesis	Creating an original, unique product (from elements and parts known before)
Evaluation	Making value decisions about issues and resolving differences of opinion (p. 279-280)

The affective domain describes a continuum of internalization, from bare awareness of a phenomenon to a guiding principle of one's behavior.

Level	Affective Behavior
Receiving/ attending	Being open and sensitive to stimuli in the environment
Responding	Acknowledging that messages or stimuli have been received
Valuing	Internalizing the concept of "worth," accepting that some values are preferable to others, and making a commitment to act on one's values
Organization	Ordering and classifying values into an abstract, conceptual system that leads to development of a value system
Characterization by a value or value complex	Acting in a manner consistent with internalized values; words and actions entirely consistent with one's value orientation (Ibid., p. 280 from Krathwohl, Bloom, and Massia, 1964)

Some of the assignments required the student only to read a statement and to mark his skill level on given description of a skill. These assignments could be quickly done without giving much in-depth consideration to the task and its relationship to the seven event analyses students had been asked to write. There were no mechanisms to check the quality of the thinking that produced the marks. Other assignments (which were written) allowed a student to use imagination or prior experience to accomplish the task without actually performing the task. Again, there were no check mechanisms. This not to say that there should be, but that the nature of the tasks allowed qualitatively different ways of responding appropriately.

Resumé construction required the student to think and write about several things: choice of format and information about self to include. In some instances, simple translation (comprehension level in the cognitive domain) would accomplish the job, if the student chose to apply minimal time to the task. The mock job interview could be prepared for in advance by the student, which would require consideration of the sorts of questions one would ask prospective employers and the questions a prospective employer would ask, as well as interviewee responses. Or the student could just show up and go through the process of being interviewed without any or minimal forethought to the assignment. Both prepared and unprepared situations were apparent in the video replays. The apparent demand is that students show up and perform in front of the camera.

In summary, while there are definite reading and writing demands, the instructor is looking for the effect of individual processing of information provided through lecture, discussion, group, and individual activities. Reading and writing skills are secondary to the introspective processes the course seeks to encourage individuals to engage in.

Student Responses to the Access Structure. Although the cognitive demands seemed to span the entire cognitive hierarchy, they were generally in the knowledge (recall), comprehension, and application levels. As indicated earlier, some students seemed to minimally accomplish the task, working mostly at lower rungs of the responding level of the affective domain, but at times valuing certain activities (i.e., resumé writing activity). However, at least the student who found the material most relevant was operating on the valuing level of the affective domain. Also since she was able to utilize the information about herself and the parachute process, the quality of her cognitive responses to the assignments seemed to more closely approximate thoughtful and purposive work.

Erratic attendance presented problems for class activities: it complicated the group interaction the instructor attempted to facilitate. According to group theory, it takes between 12 and 16 hours of group work to bring a number of individuals to the first stage of group development. However, when the hours are not in one block of time, it may take up to 30 hours to gain a similar effect. Also when the same group of individuals are not at every group session, the group may not get to a point where it can accomplish meaningful group work--sharing of information, experiences, etc. During the last three classes, and especially the last class, the career development class exhibited risk-taking by several members that indicated potential for group and personal experiences that could not be realized during the current semester. The nature of class interaction at this time seemed at a point where the class could be structured to achieve some previously unarticulated objectives. The course ended when it seemed to be at a most fruitful juncture.

Until this point, the students had not articulated their expectations. It seems likely that they had not taken the time to introspect on any dissatisfaction they felt, only to accomplish the work they felt must be done to achieve a certain grade in the course. Even though the instructor asked for and encouraged feedback, the students did not give it openly until the last class session when it was too late to change things. One can only speculate that they felt uncomfortable in speaking out, uncertain of the outcome of expressing dissatisfaction and uncertain as to what they would suggest to replace the present instructional activities and approaches (as one who criticizes is often asked to do). As discussed, at the end of the course, some students were able to articulate in a very open manner, their feelings and expectations. Expectations, in some instances, they had not recognized themselves that they had. The instructor indicated that in other classes where goal setting was attempted at the beginning of the course, students had been unable to articulate concrete goals, only vague desires for direction. This seems to contribute to nonattendance when the instructor is unable to determine directions that will address all student needs. This suggests a need for diagnostic tools to assist instructors assess student needs and relevance of instructional materials and approaches.

Personal Counseling: The Personal Development Classes as Approximations of Interaction in One-to-One Counseling Situations

One counselor told us that all counseling is personal counseling, e.g., appr priate to the individual. Certainly skills deficiencies, bad grades, and meaningless jobs affect an individual's perception of himself. But rarely, as indicated by another counselor, do students come in saying "I need help; I need someone to listen, to hold my hand, to be my friend." In a number of scenarios presented earlier, the individual in counseling seems to be sending nonverbal or covert messages indicating a need for help, e.g., the woman who said she wanted to be a secretary, the students with academic problems. Most counselors interviewed indicated that their training emphasis had been in personal counseling and that they attempted to use academic and career counseling, where appropriate, to help the student deal with personal needs.

Since it was impossible for us to observe any personal counseling sessions because of ethical considerations concerning the nature of the interactions between counselor and client, the personal development classes were selected as a close approximation of these counseling situations.

The Personal Development Classes

Two of these classes were observed; only one class will be discussed herein because the nature of the counselor/student interaction was more appropriate to the criteria of approximating personal counseling situations. The other class will, however, be used to confirm or question points under points under discussion.

Common to all personal development classes are the following assignments: (1) journal, (2) class log, (3) self-observation papers, and (4) personal growth project. Any other assignments are up to the various instructors. Methods of calculating grades--points system or contract system--are up to the individual instructors.

The philosophy stated in the syllabus is repeated in many ways, many times during the semester...knowing yourself is important, getting in touch with the present and each person's place in it and what that means. The philosophy is intertwined with broad expectations of what the class should do for students if they wish to experience personal growth. There is great consistency in the structure of the class and the activities toward its goals.

The instructor has very carefully laid out a separate prose description and the due dates of the major assignments. In describing the journal, he indicates "I am not concerned about your writing correctly because I do not want you to edit your thoughts...just write them as they occur to you." He utilizes the personal project to get to know the students. He has them schedule themselves for a one-hour conference with him during the first two weeks of class. He provides them with a written form to structure the meeting. One student pointed out during an interview that this conference (and two others in which the instructor was very patient with him) as a turning point in his perceptions of and behavior in that class. For three conferences he was not prepared to discuss his project. The third time, the instructor said to this student, "O.K. Enough is enough. If you do not want to take this course, fine. I'll drop you... if you want to stay in, then you have to assume responsibility for your own growth...make up your mind. Next time you come in here, you need to have done your part." He was ready the next time, and he rarely missed class.

Concerning attendance, the instructor points out that "there is no way to "make up" a missed class and this affects the students' grades in the class. Grading is based on the point system and there are frequent updates where students are allowed to check their figures against the instructor's. No late homework is accepted for points, but any work done is welcome and feedback will be provided. The instructor explained that it is hard for him to enforce this rule, but the principle is that the homework is assigned at the time it is assigned for a reason--it is tied to the work of the class for that particular day. If it is done late, it becomes an exercise--something that is no longer linked (at least in the instructor's mind) to immediate (or nearly immediate) consciousness precipitated by class events.

Speaking of homework, the students felt this course had a heavy dose of it. They complained loudly to the chairperson of the department who happened to substitute one day when the regular instructor was ill. Apparently (this class was not observed, but students reported the events) the topic under discussion when the homework issue came up--stress--generated this outburst from the class. The chair has since suggested that the load might be lightened a bit. Also other instructors had earlier indicated to the instructor that these students would not tolerate this much homework.

The topics outlined in the syllabus for coverage in the course are: (1) Trust-building, (2) What is human development?, (3) Self-assessment of personal development, (4) Set personal goals/establish directions, (5) Communicating ideas and feelings openly, (6) Solve problems creatively, (7) Beyond the everyday world: Are there limits to human development? In the classes observed, topics through number 5 were presented using the same terms as the communicators of content. Topics 6 and 7 were not directly addressed; however, they were a part of all the other topics. This fact was not made explicit to the class, but the topics are in a sense generic. Homework assignments required students to think about and respond to questions about these topics.

The Students

During the early observations, the class was composed of 3 Anglo males, 3 Mexican-American females, 3 Black females, and 4 Anglo females (13 total). The class came close to being cancelled because of insufficient enrollment and for the first couple of weeks, the instructor was not sure how many students to expect each day. It was an unsettling time for the instructor because it was difficult to structure group experiences when the group was unstable. The beginning of the third week, the enrollment stabilized, but attendance continued to be generally erratic.

This was a young class--no one over 24 years of age (during the observation period). Six of the students (five females and one male) were first semester freshman. There were three Data Processing majors (all women) who stayed in the course until the end. Only one person in the class worked at all--full time, and her employer was paying for her schooling. All the other students in the class had some sort of financial aid from the college.

Of the original 13 students, several dropped out of school. One student was in school because his parents wanted him to go to college. He acquiesed, proved he could handle the work, then dropped out. The other two students who dropped early in the semester were in such personal turmoil that it seemed best they tend to those situations and return to school at a later time. These latter two continued to counsel with the instructor in his role as counselor at the college. Toward the end of the semester two students initiated drop procedures and two were dropped by the instructor.

Structure of the Class

There was consistently friendly chatting between students, and students and the instructor before class. Seating was generally random, except that the Black females tended to stay together--they seemed to form a support group, but this behavior did not extend past this class. They were part of different groups outside of class.

The class always began with some form of relaxation exercise. These exercises and mediation usually lasted approximately 10 minutes. All students participated and enjoyed the experience. (Some indicated using these exercises at home to relax.) After the exercises, the instructor would ask for homework to be turned in and immediately make the assignment for the next class period. There was always an assignment.

The instructor was very methodical in assigning the work--spoke slowly, clearly, and at the end of each part of the assignment recapped quickly. He also provided examples of how he expected the assignment done and always asked for questions. Student questions related to clarification of the assignment or to repetition of some part of the assignment. Most clarification questions were asked during the assignment process itself. With no exceptions, everyone took notes during assignment dictation. Then the class turned one of four directions.

1) Series of lecturettes with instructor doing most of the talking; some brief group discussion based on broad-based general questions. This type of activity increased during the last four classes and the class was definitely more talkative and generally responsive.

2) Small group activities either dyad or foursome; once or twice a fishbowl; handouts which were part of homework assignments or related to the homework were frequently used as basis for group work.

3) Film or tape-slide (2 classes) and lecturette/group discussion. This was very like #1 but the take-off point was the film, etc.

4) Guest speakers (3 classes)

As indicated under item #1, the class grew more responsive and/or more talkative toward the end of the semester. Prior to this time instructor questions went unanswered or briefly answered. It was uncomfortable in these silent pauses and often the same students would respond with answers that were spontaneous and generally on the right track. It would be more accurate to say that the instructor used the student response in continuing his presentation. During an interview one, of the most vocal students indicated that she was embarrassed by the silence and would risk a response because she felt badly that no one was responding. However, if this student was absent or not responding that day, the instructor would make some comment about the class feeling lazy, busy weekend, etc. and would answer his own questions, rephrase them, or simply go on without an answer. This student behavior was confronted by the instructor on one occasion. He indicated to the students that this type of class required interaction. It was each person's responsibility to take the material and use it, to consider it in class, to ask questions, to become involved in the learning/growing process. There was more student-instructor interaction after this brief confrontation.

For item #2 activities, sometimes they worked and sometimes they did not. It seemed to depend on (1) each student's ability to relate to the content/context of the task, (2) the relevance of the task to the mood of each student, (3) present inclination to participate. It is hard to find rhyme or reason for those activities that seemed to involve different students at different times in the class activities. There seemed to be no common base to work from. This was really frustrating for the instructor, but the frustration did not show during the class, he took everything in stride. The frustration was expressed to this researcher after the class sessions.

However, one student stated in an interview: "I am quiet and reserved and some might say that I'm not involved in this class, but I am--only it is inside of me." According to the instructor, some of this involvement was apparent in the written responses to the assignments: about one-third of the students in their assignments grappled with issues raised which received little or no response during the class sessions.
Several students indicated that if it were not for the journal, class log, etc. they would not have been able to write self-observation papers nor to

realize that indeed they could look back at their notes and identify ways in which their thinking had changed on certain issues. They could not say that they behaved differently, even though they felt the changes to be important and they were aware of behavior in a different way than in the past.

Some Samples of Assignments

Assignments, other than the major tasks listed in the syllabus, were conceptualized to cause the student to introspect and to project into a future that he created in response to the questions. Regardless of whether the tasks were liked or not, or even how much thought was actually given to the exercise, something about the self was revealed, maybe not accepted or recognized, but forced to some fringes of consciousness.

One assignment will be presented for illustrative purposes. This assignment was long and there was no prior indication that it would have three parts; the students groaned when the third section was announced.

> Part I, #1: If you had a million dollars, what would you do? How do you see yourself? Who would be with you? Why? #2: If you were unspeakably poor (the poorest of the poor, if you can imagine that), what would you do? Follow pattern for #1. Also define poor as part of your answer. #3: Read Chapter 7 in the text. Give your reactions to the chapter. What did you learn from it? What information was useful to you? (As he finished Part I, he recapped the assignment.)
>
> Part II: Similar in format to Part I with three parts. Subject is death.
>
> Part III, #1: Spend time with someone that you have not seen in a long time or someone brand new to you. Spend at least an hour with that person. It is all right to do this over the phone, although I prefer physical presence. Then answer the following questions: #1. How did it feel? #2. What did you learn? #3. Did you 'see' the person differently, than you had in the past? #4. Did you 'hear' the person differently than you did in the past? (Instructor indicates the class might want to review chapters 2 and 3 before they spend time with their "person." He then repeats Part III and then the whole assignment. He checks to see if everyone understood. No questions from the class.)

Some Evaluation Criteria for Major Assignments

The instructor gave the following types of guidance to students for completion of major assignments:

> On the self-observation paper due Wednesday, take into account the following, be sure to give specifics, details: look at chunks of time from the first log to today. Answer the following questions: (1) Where are you now? (2) What changes have you noticed? (3) What differences have these changes made in your life, if any? (4) What specific activity

> triggered this change...what session, etc. made the difference? (5) How are you feeling about yourself now? (6) What discoveries have you made about yourself? (7) What do you feel is still holding you back from getting what you want? (8) What things that held you back have you overcome since this class, if any? (9) How do you see the world affecting you...I mean the world around you, your own space, and (10) How do you affect the world around you? (11) How have you observed yourself as a member of this class...what have you learned...have you been a good member, a lousy member, and inbetween member? (Here instructor paraphrases the assignment, then continues.) I want you to focus on those things in this second observation paper that reflect how you would look if you were seeing yourself in a mirror...through assignments, classes, journal...This assignment should be types, 4-5 pages...due on Wednesday.

There are no correct answers to the assignments: anything is acceptable as long as the instructor can detect that thought was given to the responses. The instructor admits that the evaluation is subjective. However, the instructor is also willing to listen to students explain their points verbally or to let them re-do the assignment, after discussing it with him.

A Closer Look at Classroom Interaction

Every student had been to see the instructor for more than the preliminary required conference. Sometimes after a class session where a particular activity elicited a strong response from a student(s), they would follow him to his office to begin or continue discussion. Others would call the instructor to talk about their emotional response to the activity. The students indicated that emotional responses or involvement in a particular activity was the result of personal experiences recalled during that activity or shortly thereafter.

The instructor knew quite a bit about the backgrounds, hopes, fears, etc. of the students. And at times, it appeared that the activities, guided by this knowledge, stimulated student response. However, as indicated earlier, it is difficult to analyze these situations because the expected responses were not always forthcoming from students.

Several students indicated going to see the instructor about assignment-related questions. Even though the visit turned into a counseling session, according to the instructor, the students maintained that the visits were for academic reasons. This response was consistent among the males interviewed. The females more openly admitted talking about personal matters with the instructor. The issues discussed in these sessions concerned roommate problems, girl-boyfriend problems, problems with parents, recent loss of loved one, self-concept problems related to personal appearence, shyness, and problems with other instructors.

Some personal counseling took place in the classroom. The instructor never shyed away from dealing with the issues brought up by students. If the student was willing, the instructor would listen, ask questions, respond through questions as well as suggestions for the student to consider. Sometimes the class would join in offering suggestions or asking questions to clarify the situation. This situation of personal disclosure was not particularly uncomfortable for the other students. On two occasions, however, several students seemed a bit irritated by a particular student's domination of the class through discussion of personal issues. The instructor sensed this and guided the discussion smoothly toward more general issues to involve the entire class.

Critical Incidents: There were two critical incidents during the semester that seemed to affect response patterns. The first occurred eight weeks before the end of the semester. It was the class after the gripe session when the department chair substituted for the regular instructor. The "gripe" session was not observed; however, five students and the instructor reported the incident to this researcher. Their descriptions were basically the same.

When the regular instructor returned to class after his illness, the dynamics of the class were a bit strained--students did not look directly at the instructor. The students did not know what to expect, how the instructor would react to their behavior. He handled it with humor and firmness. When he walked in, several students were already in the classroom, seated on cushions. He sat on one and started to talk to the person sitting by him. When the entire class had convened, he confronted the situation. "Mmmmm. So you all think the assignments are too heavy in this class?" The tone was not accusatory or condemning. There was no punishing behavior at this or any other time. His tone was actually slightly amused. He indicated that he would like for the class to talk with him about any problems they had with the class or the homework. There was silence. The instructor then proceeded with the class for the day.

One student who had been particularly vocal in expressing her dissatisfaction became particularly responsive in this class and for the rest of the semester. However, she did not do it in an apologetic manner. This situation seemed to have a certain maturing overtone for the class. There seemed to be more confidence and trust in the instructor and in other class members, for there was more risk-taking and disclosing behavior from the students.

The second critical event occurred about three weeks before the end of classes. Two female students were dropped from the class, by the instructor, for too many absences. It had apparently never occurred to anyone in the class that the instructor would initiate drop action. He had attempted to reach both these students by phone to tell them of his intention to drop them. However, since he could reach neither of them and the deadline for dropping students without penalty was imminent, he did so without being able to notify them first. When these two students next appeared in class, he walked over to them and told them what he had done. The reaction was extreme surprise and hostility. Neither of them felt they could afford to be dropped. They were on financial aid, and the dropped hours would endanger their support. The instructor indicated that he was extremely sorry, but that he had been unable to reach them to notify them, and since they had not been to class for several sessions, he had no choice. There was a brief scene, and the students stormed out. (This class was another that was not observed; the description is based on the details provided by students and the instructor.) After this scene, the instructor apologized for the situation and began the class.

In informal conversations, the students who remained in the class indicated that the instructor had done the right thing. The students deserved to be dropped. The interaction of the class after this situation again seems to have become more intense. The interaction between students became more spontaneous, and there was a feeling of closeness that seemed to stem from the inter-student interaction, whereas before the interaction had been more with the instructor, in response to questions and comments. Now the students were also talking more spontaneously with each other during the class itself.

During these latter sessions, when students were spontaneously discussing issues, it seemed that their levels of comprehension of concepts being used in class was at a basic level. The students were at a different level of understanding than the instructor was seeking to attain, and, in fact, was utilizing to instruct. For example, self-disclosure was described by students as "telling someone your deep, dark secrets." Communication was something that happened between two people. There seemed to be little inkling of inner or self-communication and how that affected outward communication processes. The instructor would indicate that the examples they were using were part of the concept, but that there was more depth to the concepts. He would give examples of the meaning he wished to convey, but the students seemed to be unable to grasp the expanded versions. It seems that the students had found a common bond in their interpretations which they now used to share information and values and that the next level would require more exposure and introspection.

Discussion: The Personal Development Class

The personal development classes are basically designed as experiential learning. They provide a prolonged period of basically intense exploration of the self and relationships to others. The concepts presented were to provide the undergirding for introspection--the foundation for personal growth and sounder decision-making. Application of the learnings was a major goal, with integration of the learnings into a guiding framework, the overarching goal.

The preconceptions or understandings held by class members of the basic meanings of some of the core concepts of the subject matter seemed to limit the students' abilities to apply the concepts. Terms like "self-disclosure" and "risk-taking" were used at basic levels of understanding--"telling someone your deep dark secrets." One student said "I do not take risks because I might get caught." The students, generally, did not seem to be able to relate to the broader definitions, nor could they relate to the instructor's identification of disclosing and risking behavior that they were involved in in class. The expanded definitions did not seem to fit the students' experiences/perceptions of their behavior.

There is a basic issue here revolving around the use of language--the basis of the self-transcendence that the instructor was attempting to convey to the students. Pankow (1976) describes the problem.

> Self-transcendence means the capability to change one's own point of view, and therefore the capability to view a situation in a new light, or one might say, the ability to jump over one's own shadow. The symbol for such a capability is Baron Munchhausen, who pulled himself up by his own hair. Thus, self-transcendence makes individual and mutual understanding possible by means of the very capability of including the new in the old, as well as the individual in the common, because individual and collective consciousness have developed, and still develop, in mutual interdependence (p. 20).

> Our representation (model, image) of the world...depends not only on the world, but also on the means of representation, or in this case language, which is the 'organ' of consciousness...self-transcendence cannot be deduced in an a priori sense from the observation of objects, but only from an observation of observation, and therefore from the observation of one's own consciousness, in particular of one's own use of language. Only if I experience self-transcendence in my own thinking and speaking can I also recognize self-transcendence in the being and consciousness of other living systems. Only if my means of representation are themselves self-transcendent can I represent other self-transcendent objects; and my ultimate, most direct means of representation, which is also accessible to others, is my use of language. If I discover self-transcendence in this realm, which belongs to me in a most personal way, I can also recognize it in the outer world by means of sensitive feeling....Furthermore, I can tell others of my discovery only if they, too, know the personal experience of self-transcendence. Communication about self-transcendence does not work out of necessity because it presupposes the experience of self-transcendence (p. 17).

The instructor did not presuppose the experience of self-transcendence in his students. His assignments requested the students to reflect on their perceptions, to step outside these perceptions and seek the perceptions of others, to reflect on the differences, and to tease out of the interaction the individual and the collective. The students seemed generally on an awareness level of behavior, aided, as indicated earlier, by the self-observation papers, the journal, and the class log. Introspection on their own behavior, as required in this class, was not something that most of the students engaged in, according to informal conversations and interview data, prior to this class.

Pankow's comments seem appropriate. They point to the need for study of the phenomenon of self-transcendence so that we may facilitate the process.

Access Structure Demands on Students: Class activities were geared to the entire learning hierarchy through readings, lecturettes, group interaction, and individual introspection. However, students in class generally responded on the knowledge, comprehension, and application levels. The other levels were not discernible from the classroom as the unit of analysis.

In the affective domain, most of the class seemed on the receiving level and maybe for brief periods on the responding level, of their own initiative. They were forced by assignments to perform at the responding, valuing and organization levels, since the subject matter is personal and requires some introspection to respond even in a minimal way.

In this class there was considerable attention paid to the assignments required of students. However, it was not the quality of the writing that mattered--the instructor wanted their unedited thoughts, the transformation of perception and feelings into natural language. This process is basically comparable to the pre-writing stage of composition construction. The instructor was seeking quality of introspection--thinking about the events in and out-of-class that could be used by the student to explore class concepts, not organized writing and correct grammar, etc. He did structure the self-observation papers for the students, i.e., he provided questions for them to frame their analyses.

Again, he was not looking for good writing, but instead for quality of introspection processes. (One student indicated that the instructor had strongly recommended that he consider developmental writing because his writing needed work. He took the instructor's advice and enrolled in a writing course the following semester.)

Reading the class text was a requirement for most of the written assignments. Students were to comment concerning their interpretations of the material and its usefulness to them. Many students found this difficult, not because of the reading level or the concepts presented (which they frequently intimated they already knew about and understood), but because they had to think and write about the material. This is exactly the crux of the dilemma of personal growth. It *requires* the synthesis of the cognitive and affective domains based on self-knowledge--about values, hopes, fears, etc.--and the extension of this knowledge to the outer world, and the reflection on this information to form a new synthesis. The ability to accomplish this is dependent, to a great extent, on the students' needs to change and on their reflection skills. Growth in the latter dimension is very difficult to gauge because it is an internal process that the student may be unable to articulate. It may cause recognition of conflicting values that need to be resolved. Forcing the articulation, through the writing requirements of the class, seems to have great potential for skill-building in self-reflection. The instructor formally commented on students' papers to guide the learning process, and, in informal conversations with students, provided encouragement. His feedback was always positive, when he could determine that the student was struggling with the issues. However, when he could determine that the student was not responding to the issues, in at least a minimal way, he asked for a student-teacher conference and requested a re-write, providing guidance for the student's efforts.

The access structure demands, then, could be summarized as:

1) Students must attend and participate to some extent in the class discussions and activities.

2) Students must complete the required thinking, writing tasks, even if the thought given to the assignments could be construed as minimal.

3) Students must read enough of the text and handouts to complete the assignments. (Twelfth grade reading levels were the maximum reading level requirements.)

Student Responses to the Access Structure: Student expectations for this class were not surprising: because of the nature of the content, they expected that there would be few out-of-class assignments and they expected the instructor to "teach" them, not facilitate their thinking about different concepts and require them to produce evidence of the process. When students complained about the amount of work they were required to do, they referred to the other personal growth classes in which students were not required to produce so many products. Even though the instructor's seven-page, single-spaced syllabus, which he explained in detail, indicated a substantial work load, the students were surprised by the instructor's expectations during the semester. It was not until the students had to produce the assignments and deal with the consequences of late assignments, that they realized the instructor syllabus was to be enforced.

The students were favorably inclined toward the class and indicated that they enjoyed interacting with the instructor out of class, in addition to in class. However, at least half of the students did not seem to take school seriously. They were absent from all their classes as frequently as they felt they could get away with it. Several misjudged the consequences of absence in this particular class. (One student indicated going to social sciences classes only until roll was called, then slipping out. She made "A"s on all her exams because they came right out of the book and she could read that at home alone. Furthermore, she had a system for learning the material which included underlining in the book and then outlining the material. She also spent time answering study questions found in the book. Other students were not so fortunate; either because their skill levels and/or willingness to apply themselves caused low grades and drops in other classes.)

Student responses to the access structure, therefore, seemed mixed. Half the class seemed to be trying to apply the concepts and to value the activities. This is supported through their increasing interaction in the class discussions and through the informal conversations about the class. As in the career exploration class, this course seemed to end when the climate was ripe (for the core of the students who attended regularly) for more structured and targeted exploration of personal development issues. The instructor commented that this particular class was unique in his instructional experience. These students had such turmoil in their lives that psychotherapy might have been an appropriate intervention for some of them to consider. He felt that the students problems made this class extremely difficult to structure and that, indeed, he could frequently not find rhyme or reason for the activities that evoked student response.

Conclusions and Recommendations

Intelligence, in and of itself, is not the sine qua non of academic success. Fritz Heider (1958) in his native theory of interpersonal relationships and individual change presents three concepts pertinent to academic success: Can, Want, and Try. Can relates to aptitudes (including intelligence, abilities, interest factors); Want describes the motivational system; and Try refers to goal orientation and efforts to achieve the goal. Consideration of variations in the levels of these factors in individual situations can provide insight concerning their relationship to academic success. The counselors can work in all three areas, but concentrates on Want and Try.

Except in course work where counselors require students to perform reading and writing tasks, counselors are not directly involved in literacy development. Their major function is to act as intermediaries to help the student adapt and to develop,or to provide information for the institution to develop,mechanisms that will bridge the gap between where the students are and what the institution provides to meet their needs.

Even though counselors may not be trained in basic skill assessment (and possibly this an area for professional development), they have several means to detect basic skill deficiencies. Several counselors indicated asking students to read the college catalog or some other material, either aloud or to themselves, then to paraphrase the content. The various tests (personality, interest, etc.) could be used as other indicators of student difficulty with reading. Counselors must be alert to the slightest indication of a skill deficiency in students and encourage the students to consider the inherent difficulties of the problem to success in school, opening the door for consideration of other skill deficiencies the students might have. It must be obvious that instructors must function in the same manner and they have an even better means to gauge student skills--their course materials.

From this point of skill assessment, the counselors must be involved in monitoring the students' progress through the educational processes. The counselor' role is largely a general-function sensitizing role that may include recipes (analogs), and heuristics (problem-solving approaches). Theirs is the realm of the affective domain undergirded by the elements of the cognitive domain that provide the grounding to explore and impact the affective domain. Counselors are the agents of the community college who are officially assigned the role of engendering and facilitating what we are all still struggling with--human growth and development. Counselors must convince students that as counselors they can be helpful and then work with the students to get a grasp on the various problems that must be addressed, sequenced or prioritized, and resolved. The interaction must provide a model, and build student skills so that the student can apply the concepts to other problems he may face.

The difficulties of accomplishing this ideal situation include time constraints, skill levels, and a willingness (valuing) to do what is necessary--by both the counselor (as the institution's representative) and the student. The student and counselor must identify "markers" which signify progress toward the goal(s) the student has set for himself. The significance of these markers cannot be underestimated as motivational forces in the student's efforts to achieve his goals.

The next section presents a summary of the Student Services Access Structures and the experiences of community college students as they interact with elements of the educational processes of the institution. This will be followed by the conclusions and recommendations we suggest for both the enrollment phase and the counseling function portions of this Student Services Subsystem study.

Summary of Student Services Subsystem--Counseling Component

The access structures seem to have varying success in providing adaptations to the college by students. The access structures which are mandatory--academic advising and registration--certainly process all the students who attend the school. However, these processes are totally embedded in time-bound circumstances for new students and some very important activities are compressed into a very short time. Although the institution has attempted to remove the time constraints for advisi rently enrolled students, large numbers of them are advised, by their own choice, in a short period of time at the end of the semester.

The sort of information received by students at new student orientation and advising is basically preparation for registration. Information about forms, location of registration, the college--its campuses, educational records, course scheduling, general information about the college--its programs and services is provided. Basic skills assessment (of students with less than 30 college-credit hours who attend orientation) provides the students with information about skill levels which they must decide how to use. The college does not make enrollment in remedial course work mandatory for students whose scores indicate basic skill deficiencies.

Career counseling, including selection of major, does not receive much attention during orientation and pre-advising as currently practiced. Many students see academic advising as a "rubber stamp" process. Mostly academic advisors seek to find the major that the student has/will select in order to use the given degree plan to advise from (degree plans are found in the college catalog). They also seem to encourage students to try courses in given areas for interest and aptitude and to make a better choice after experiencing the content.

Since counselors advise Undecided and General Studies majors, their basic advise is for the student to take general function courses that can be used in any degree plan. They attempt to give the student the option of preparing for transfer to a senior college, rather than take courses at random that may have little coherence as far as a degree plan goes.

There seem to be a small number of follow-up visits from students to counselors or advisors on career counseling. Thus, it is difficult to gauge how effective this process is. However, career exploration/selection, when it is to entail exploration and trial, will certainly require more than one brief visit. There is, however, no mechanism to provide for follow-up visits.

Partially because of time constraints, partially because of lack of training and the nature of academic advising as currently envisioned and practiced, this access structure does not seem to help students adapt to the college. Students who declare a major are not questioned on the appropriateness of their choice. We could find no evidence of any efforts to provide students with rationales for the sequencing of courses in their degree plans or of the relationship of course work to the world of work.

The sorts of assistance that new students need for beginning to adapt to the higher education processes cannot be provided in the timeframe of new student orientation. The access structures that have an on-going dimension have a better chance to provide the information and environmental support for student adaptation, but the efforts are not integrated into a coherent system. They are isolated efforts of counselors, instructors, and programs all over the college.

The access that counselors have to students are mainly through workshops, the human development courses, advising and counseling, and the time they spend walking around and talking to students in the lounges and hallways of the college. The sorts of student data needed by counselors to identify students who might benefit from their services are not easily available to them. Furthermore, students are difficult to locate and contact. Because the access structures seem to rely heavily on students' decisions to utilize them and students are reluctant for many reasons--time constraints, cultural "interference", bad experiences with counselors in high school or the college itself, not aware of all the services available--to seek out assistance with their concerns, many of the services may be underutilized.

Counselors have initiated direct-indirect access mechanisms (consultation, liaison to departments) to both inform faculty of the ways counselors can be integrated into the teaching/learning process and to provide services to integrate themselves into these processes. But without college policies and organizational structures that enhance the integration efforts, the integration strategies will take a long time before they are accepted or will be rejected as failures because of the small results of the efforts.

Conclusions and Recommendations

The Enrollment Phase

The Enrollment Phase includes four college access structures: New Student Orientation, Basic Skills Assessment, Academic Advising, and Registration. These activities are among the first that students, as a group, encounter when they make decisions to consider college attendance. About these programs Ott (1978) comments:

> Student persistence seems directly related to the adequacy of the images created and harnessed by admissions (enrollment phase in our terminology). The images may be concerned less with listing of majors, percentages of Ph.D.s, and class size than with the spirit of the college, its people, and a suggestion of what a person might become as a result of being part of a campus community for a period of years. Admissions potentially influences prospective students' experience expectations of the institution, of themselves, and of the relationship between the two. When admissions creates a dream based on the opportunities of an institution--its programs, services, and people--a single office has direct impact on student retention, or attrition, as the case may be (p. 28).

The Enrollment Phase may be conceptualized as an organizational socialization effort. It should be the "process by which a person learns the values, norms, and required behavior patterns which allow him to participate as a member of the organization" (Van Maanen, 1975). Van Maanen further indicates that socialization efforts that are too irregular, ambiguous or misguided frequently lead to results that are the antithesis of their goals: rapid turnover, job dissatisfaction, low productivity, role problems, absenteeism, etc. These results, phrased in business terminology, have synonyms in educational environments that describe student behaviors, specifically attrition, quality of involvement in instructional processes which produce minimally acceptable homework assignments, absenteeism, etc.

New Student Orientation

Orientation is not well attended. At the most 30% of the new students are involved in the process. The general information presentations are just that--general information about the college, its services, and a preparation for the registration process. Little information is provided that gives the new student an accurate picture of what it means to be in college--what they must do to succeed there. There is little warning of the "pitfalls that could lead to academic difficulty...poor study skills, poor use of time, failure to keep up with course work, lack of personal discipline, underestimation of the amount of work required, too much emphasis on extracurricular activities" (Hart and Keller, 1980: 533).

Student orientation is not a one-shot gamble. Hart and Keller (Ibid.) have the following suggestions for orientation activities: (1) an admissions pamphlet composed of articles by students who have experienced the difficulties, but overcome them, or the results of surveys of first semester freshmen who performed poorly; and (2) small group seminars on the subject of academic expectations and pitfalls, including new students, current students, faculty, counselors, and administrators (p. 532-33). These types of activities provide the student an opportunity to hear and read what is expected of them. They probably won't act on the information, but they might be alerted to the "signs" of trouble and heed the advice before it is too late.

The University of South Carolina has designed a three-credit hour course to accomplish important orientation objectives:

> (1) to provide an extensive orientation to the general purpose of higher education; (2) to provide an orientation to one university in particular; (3) to help freshmen to adjust to the university and develop more positive attitudes toward the university and the learning process; (4) to improve the retention rate of freshmen; (5) to give faculty and staff special preparation to teach the course, which exposes them to new and more effective ways of communicating subject matter to undergraduates; and (6) to make students and faculty more knowledgeable about their university, its services, and resources (Gardner, 1981: 69).

The course has been evaluated and monitored by outside evaluators since its inception in 1972. The results: "the course is positively correlated with significantly higher retention of freshmen, even when freshmen taking the course have been found to be initially less academically qualified than those students who do not take the course" (Ibid., 69).

Suggestions such as those above are worth consideration since the community college has the mission of serving a student population, including many students who have never before considered attending college as an option and do not know what to expect. Their only models of education are elementary and secondary school experiences.

Academic Advising

In most instances, advising is considered a chore. Part of the problem is the rushed circumstances under which it usually takes place, even though currently enrolled students can be advised at any time during the semester. The students generally perceive that academic advising is not important, both from the length of time they spend with an advisor, and the content of the interaction--mostly geared to course selection, which they frequently can do for themselves.

Students will more likely value academic advising when the institution consider it important and provides mechanisms that effectively assist the student in considering the career/education options, clearly provides rationales for the curriculum, and provides the course content that fulfills the promise of relating higher education to the worlds of work and personal development and growth.

Advisors in community colleges cannot be expected to accomplish the goals of valuable and effective academic advising in one session. There is too much information, both to be solicitied from and shared with the student, to be processed in one session. There must be a college-wide systematic effort that is appropriately sequenced that provides the student with information and guidance that leads to program and course selection. About academic advising, Dressel (1980) says

> If education could be interpreted to students as a valuable and cumulative experience relative to later living as well as to a career, dropouts and discontinuities in attendance might be reduced...In many ways, good advising may be a more critical and more significant academic function than teaching (p. 261).

Given the diverse clintele and especially the diverse life-style constraints, the community college must provide varied access structures to prepare students for academic advising that is beneficial. These mechanisms should be somewhat easier to provide for new students than for currently enrolled students and both groups need it. For new students, pre-college programs that prepare them for the thinking and choices that must be considered in the advising process (see Hart and Keller, 1980; O'Banion and Thurston, 1972). For currently enrolled students catch-up could be handled through departmental ties--the students' major discipline, where the students are provided the benefit of an overview of their chosen fields and the relationship of higher education to these goals, the pitfalls of college attendance, etc. and then referred to other sources or to advisors for followup on specific concerns. The departments could assign students to faculty members to review their career decisions, past and current college work, and their program plans. Continuity of contact and student profiles that document student efforts, background, etc. are important elements of a systematic effort. All of this would be time consuming--both in the planning and implementation of the plan, but if the efforts are not made and the current system prevails, we will be perpetuating a disservice to students.

> Students who have an insight into the rationale and the intended outcomes of a program will be more highly motivated, will apply themselves with greater energy, and will organize their learning in ways not possible under the usual fragmented program made up of specific required courses or some combination of required and selective opportunities...highly motivated learners ultimately teach themselves and...the development and use of that motivation are the main functions of the professional teacher (Dressel, 1980: x).

Dressel is addressing more than just the academic advising issue above. He is questioning the disciplinary boundaries of majors and programs of study. This is not a new question, but certainly one worth considering in the light of the findings of this project.

Registration

The registration procedures serve to raise further questions about institutional belief in the importance of academic advising. Large numbers of students are allowed to enroll with minimal consideration to the issues inherent in academic advising. However, students seem, in many instances, to prefer it that way, since they have made course decisions based on catalog degree plans. In essence, many students self-advise and their decisions are accepted at face value.

The fact that the colleges must refuse access to students to courses that are in great demand is of concern. Space considerations complicate student access to these courses. A study of space utilization by course and actual numbers of students in classes might provide information for alternative arrangements for increasing student access to courses.

Late registration includes a mechanism to allow underprepared students a chance to transfer, without penalty, to developmental course work, either through their own recognition of skill deficiencies or though instructor recommendations. The mechanism does not seem to be utilized widely by instructors or students. Part of the reason for this may be that instructors are not aware of the service. With the large numbers of part-time instructors and the bussle of beginning of classes, the announcements of the service may get lost only to be found too late for appropriate action. Since 70% of new students do not attend orientation, they are not assessed for basic skill problems. And since student skill assessment in classes is not a college /departmental policy, these students do not have an opportunity to get this information before they have spent some time in the classroom and it might be too late to transfer to a developmental course at the time they make their discoveries.

Whatever information is needed by both students and advisors for sounder decision-making concerning college course work must be available at the time of advising. Otherwise, an entire semester could be wasted, causing problems for the student, the instructor, and the institution.

The Counseling Function

The counseling function as described in this chapter categorizes counseling interactions into three components: academic, career, and personal. These categories are difficult to use because there is much ambiguity and overlap in the presenting problems that the students bring to counselors and to human potential courses. Furthermore, the categorizations seem to set up negative dynamics because some counselors indicate they have no training in academic advising and express a preference for personal counseling. One counselor indicated, however, that all counseling was personal counseling, and it was the counselors' attitudes that allowed them to utilize their skills in any of the categories for the benefit of the student.

Gilmore (1980) reframes the categories and provides effective strategies for dealing with the problems) and translates them into "life circumstances that prompt a person to seek assistance of a counselor" (p. 296). The categories are change, choice, and confusion reduction. Choice describes situations in which a "person has reached a point where some decisions must be made." The intervention strategies include rational planning and decision-making. Change refers to situations where the "person wants something about his pattern of actions, thoughts, and/or feelings to be different." Intervention strategies revolve around behavior modification. Confusion Reduction has two possible bases: (1) a person needs to make choices or changes and (2) "the way the person has structured experience and assigned meaning to his life is no longer working...not much seems to matter or make sense anymore." Counseling for these different bases ought to be different, depending on the source of the problem. Strategies for intervention include the strategies for choices and change along with perceptual and cognitive restructuring (p. 297).

Gilmore (Ibid.) further points out the danger of accepting the client's analysis of the problem at face value--his initial formulation of what he wants and why he wants it. The concern is that counselor/instructor predispositions to expect students to act as adults--be responsible--may interfere with the counselors' probing behavior that could uncover discrepancies, ambiguity, etc. in the student's analyses. These discoveries must be shared with the student to provide the basis for re-evaluation and further movement toward problem resolution. If this is not done, counselor and student may be working on the wrong problem. Although, the choice is still the student's, he will have new information on which to base change, make choices, or reduce confusion.

Having made a general statement concerning the framework of the counseling function, we now turn to some specific issues identified previously.

Given the current state of knowledge of the nature of human communication and the technology of teaching the concepts, the most a human potential course composed of young students (between the ages of 18-24, regardless of previous experiences) can hope for on the learning hierarchy is cognitive domain level 2--comprehension, and affective domain level 2--responding. The student responses that go beyond these levels are the exception. The critical variable is need for change. If there is a high need for change, the class can have a profound impact. Both the instructor's facilitation skill and the student's introspection skills are important factors in the potential change effort. Time is an additional critical variable--both the time for student reflection and the time to share the reflection with the instructor and to receive feedback and guidance in a one-to-one setting. This situation is as much a learning experience for the instructor as for the student.

Because it takes a quantum leap in terms of individual understanding of the basic concepts to go from the comprehension/responding levels to higher states of cognition and affect, counseling sessions in a community college probably suffer from the same dilemma as human potential courses. Again counselor/student skill levels and willingness to explore and learn (based on need) are important variables in the effectiveness of the process.

The level of readiness of the student to deal with the issues (the student's need for change) or do what is necessary to experience growth, change, etc., greatly influences the impact of a human potential course/counseling session. Students may leave the course/counseling session with new knowledge or knowledge of different ways to view situations, but if it is mainly in the cognitive domain that the experience is embedded, and the affective domain is not or is minimally involved, the impact may be minimal. Because so many of the processes are internal and take time to manifest themselves, it is difficult to gauge impact.

Writing--the articulation process and the capture of thoughts, feelings, ideas--is an important activity in facilitating personal growth. While journal, logs, etc. could utilize the free form--unedited writing--periodic summative papers (as indeed requested of students in the human potential classes observed) should require the student to synthesize and integrate his evolution at successive stages of growth experiences. Dialogue is so easily forgotten and,while the affect remains, articulation may require reinvention of the language used to articulate a forgotten thought.. It is also hard to "see" progress in ideas, thoughts, when there is no record of beginning...middle...

Homogeneous groupings of students based on similar information needs could enhance the relevance of all human potential courses. Even though variables of age, sex, and ethniticy were not apparent factors in the success of the classes observed, there is much literature to suggest that these factors may also be influential in successful student experiences of career exploration and personal growth. Categorization by personality variables might differentiate students along age, ethnicity, and sex varibles. There are important questions to be asked before deciding on a particular categorization system, but considering the great diversity of the student population, instructors need some assistance in structuring classes for relevance to students.

A combination of one-to-one interaction with the instructor and class (group) contexts seems necessary for grounding instructional/counseling intervention strategies. This is not to imply that this is not done, but that attention to feedback from students on the relevance and success of instructional strategies and materials must be a more frequent feature of classroom practices and counseling sessions.

Depending on the nature of the problem that students bring to counselors, expanding the counseling intervention strategy to include the instructor in problem identification, clarification, and resolution may be an appropriate counseling approach. There are considerations of how to approach the instructor, that will not alienate him or cause problems for the student, but the benefits of the expansion of the problem solving set to include persons important to the solution, at least,merit consideration.

When students come to counselors for assistance in problem-solving, there is no system for follow-up visits to monitor student progress on problem resolutions. Counselors indicated a desire for followup, but students were hard to locate and contact. The fact that students infrequently come back to see counselors could have several explanations. (1) the student resolved his problem; (2) the student decided to utilize his support system which does not include the counselor; (3) the student was dissatisfied with the session, either because he still felt lost and didn't know what to do or because he felt the counselor did not really understand the problem; (4) the student was embarrassed about needing help and did not want his peers to consider him weak (cultural interference). As researchers, at various times, we heard statements that suggested the various explanations; however, we have no data on their frequency of occurence. It seems that not only mechanisms for encouraging student follow-up visits, but for evaluating the effectiveness of counselor/student interaction must be considered.

More attention needs to be given to the skills students possess for implementing the plans suggested in counseling interactions. One visit can only accomplish so much, and, if the student is to be left to resolve his problem(s) after one visit, many things could go wrong. Assessment of the skills necessary to follow-up an action plan are an important part of the student's ability to follow the plan. There seems to be little systematic attention to this variable.

The fact that students are in school indicates they perceive that an education is important to their career/job goals. But there seems to be no systematic attempt to relate the world of work to the higher educational processes in career development/advising efforts; here seem to be no efforts to help students identify the relationship or value of the course work required by his program of choice to other courses. Homogeneous grouping of students by area of study, even within a class utilizing process characteristic categorization, for example, could allow for small group discussion with individuals from various career options and departmental advisers concerning the relationship of the world of work and higher education.

Concluding Statement

Counselors, in student services settings, are the specialists in the community college for information concerning certain aspects of college life and the social and personal problems of literacy. Through academic, career, and personal counseling, on an individual and group basis, they seek to offer services and programs that assist students in their personal growth and their experiences in the college. The findings and recommendations presented above are not relevations. Student services personnel are aware of the dilemmas, and publications and conferences abound that report both successful and unsuccessful efforts to resolve the various problems. This section of the final report simply attempted to provide additional information and hopefully some interesting insights for the people grappling with these difficult issues.

Bibliography

Babcock, R. J., and Kaufman, M.A. "Effectiveness of a Career Course." VOCATIONAL GUIDANCE QUARTERLY, 1976, pp. 261-266.

Betz, Ellen. "The Counselor Role." In U. Delworth, G. Hanson, and Associates, STUDENT SERVICES: A HANDBOOK FOR THE PROFESSION. San Francisco: Jossey-Bass, 1980.

Bloom, Benjamin. TAXONOMY OF EDUCATIONAL OBJECTIVES: THE CLASSIFICATION OF EDUCATIONAL GOALS. Handbook I: COGNITIVE DOMAIN. New York: McKay, 1956.

Bostaph, C.P. A STUDY OF STUDENT ATTITUDES TOWARDS THREE DIFFERENT ACADEMIC ADVISING SYSTEMS CURRENTLY USED IN THREE DIFFERENT UNDERGRADUATE SCHOOLS AT THE UNIVERSITY OF PITTSBURGH. Unpublished dissertation, University of Pittsburgh, 1976.

Bostaph, Charles, and Moore, Marti. "Training Academic Advisors: A Developmental Survey." JOURNAL OF COLLEGE STUDENT PERSONNEL, 1980, 21, 45-50.

Clark, Johnnie R. "Student Personnel Work and Minority Groups." In T. O'Banion and A. Thurston (eds.), STUDENT DEVELOPMENT PROGRAMS IN THE COMMUNITY JUNIOR COLLEGE. Englewood Cliffs, N.J.: Prentice Hall, 1972.

Crockett, David S. "Academic Advising: Cornerstone of Student Retention." In Lee Noel (ed.), NEW DIRECTIONS FOR STUDENT SERVICES: REDUCING THE DROP-OUT RATE, No. 3. San Francisco: Jossey-Bass, 1978.

Daniels, M. Harry, and Buck, Jacqueline N. "Facilitating Career Development Through Small-Group Process." In V.A. Harren, M. H. Daniels, and J. N. Buck (eds.), NEW DIRECTIONS FOR STUDENT SERVICES: FACILITATING STUDENTS' CAREER DEVELOPMENT, No. 14. San Francisco: Jossey-Bass, 1981.

Delworth, Ursula, Hanson, Gary R., and Associates. STUDENT SERVICES: A HANDBOOK FOR THE PROFESSION. San Francisco: Jossey-Bass, 1980.

Dressel, Paul L. IMPROVING DEGREE PROGRAMS: A GUIDE TO CURRICULUM DEVELOPMENT, ADMINISTRATION, AND REVIEW. San Francisco: Jossey-Bass, 1980.

Evans, J. L., and Rector, A. P. "Evaluation of a College Course in Career Decision Making." JOURNAL OF COLLEGE STUDENT PERSONNEL, 1978, 19, 162-168.

Fenske, Robert H. "Historical Foundations." In U. Delworth, G. Hanson, and Associates, STUDENT SERVICES: A HANDBOOK FOR THE PROFESSION. San Francisco: Jossey-Bass, 1980.

Friedlander, Jack. "Are College Support Programs and Services Reaching High-Risk Students?" JOURNAL OF COLLEGE STUDENT PERSONNEL, 1980, 21 23-28.

Gardner, John N. "Developing Faculty as Facilitators and Mentors." In V.A. Harren, M. H. Daniels, and J. N. Buck (eds), NEW DIRECTIONS FOR STUDENT SERVICES: FACILITATING STUDENTS' CAREER DEVELOPMENT, No.14, San Francisco: Jossey-Bass, 1980.

Gilmore, Susan K. "Counseling." In U. Delworth, G. Hanson, and Associates, STUDENT SERVICES: A HANDBOOK FOR THE PROFESSION. San Francisco: Jossey-Bass, 1980.

Hanson, Gary R. "Instruction." In U. Delworth, G. Hanson, and Associates, STUDENT SERVICES: A HANDBOOK FOR THE PROFESSION. San Francisco: Jossey-Bass, 1980.

Harren, Vincent A., Daniels, M. Harry, and Buck, Jacqueline N. (eds.). NEW DIRECTIONS FOR STUDENT SERVICES: FACILITATING STUDENTS' CAREER DEVELOPMENT, No. 14, San Francisco: Jossey-Bass, 1980.

Hart, Derrell, and Keller, Michael J. "Self-Reported Reasons for Poor Academic Performance of First-Term Freshmen." JOURNAL OF COLLEGE STUDENT PERSONNEL, 1980, 21, 529-534.

Heider, Fritz. THE PSYCHOLOGY OF INTERPERSONAL RELATIONS. New York: John Wiley and Sons, 1958.

Katz, J. and Associates. NO TIME FOR YOUTH. San Francisco: Jossey-Bass, 1968.

Kramer, Howard C. "Boundary Spanning: Implications for Student Personnel." JOURNAL OF COLLEGE STUDENT PERSONNEL, 1980, 21, 105-108.

Krathwohl, D. R., Bloom, B., and Massia, B. B. TAXONOMY OF EDUCATIONAL OBJECTIVES: THE CLASSIFICATION OF EDUCATIONAL GOALS. Handbook II: AFFECTIVE DOMAIN. New York: McKay, 1964.

Matson, Jane E. "Student Personnel Work Four Years Later: The Carnegie Study and Its Impact." In T. O'Banion and A. Thurston (eds.), STUDENT DEVELOPMENT PROGRAMS IN THE COMMUNITY JUNIOR COLLEGE. Englewood Cliffs, N.J.: Prentice Hall, 1972.

O'Banion, Terry. "Exceptional Practices in Community Junior College Student Personnel Programs." In T. O'Banion and A. Thurston (eds.), STUDENT DEVELOPMENT PROGRAMS IN THE COMMUNITY JUNIOR COLLEGE. Englewood Cliffs, N.J.: Prentice Hall, 1972.

O'Banion, Terry and Thurston, Alice (eds.). STUDENT DEVELOPMENT PROGRAMS IN THE COMMUNITY JUNIOR COLLEGE. Englewood Cliffs, N.J.: Prentice Hall, 1972.

Ott, Linda S. "Admissions Management with the Focus on Retention." In Lee Noel (ed.), NEW DIRECTIONS FOR STUDENT SERVICES: REDUCING THE DROPOUT RATE, No. 3. San Francisco: Jossey-Bass, 1978.

Pankow, Walter. "Openness as Self-Transcendence." In E. Jantsch and C. Waddington (eds.), EVOLUTION AND CONSCIOUSNESS: HUMAN SYSTEMS IN TRANSITION. London: Addison-Wesley, 1976.

Smith, D. R., and Evans, J. R. "Comparison of Experimental Group Guidance and Individual Counseling as Facilitators of Vocational Development." JOURNAL OF COUNSELING PSYCHOLOGY, 1973, 20, 202-207.

Weinberg, Carl. SOCIAL FOUNDATIONS OF EDUCATIONAL GUIDANCE. New York: The Free Press, 1969.

CHAPTER III
ATTRITION, PROBATION AND LITERACY

The research reported thus far in this study has not gone outside the confines of the community college: we cannot say very much about how literacy skills or what the students learn in the college are related to what goes on outside the college--at work, for example. This generates a certain problem for us when we find, for example, that students can pass certain courses without having to read or write anything, while in other courses we find that students may have extensive writing and reading assignments which require that they pay at least some attention to sometimes complicated performance criteria. There is one level of analysis at which this diversity creates a picture of the literacy demands of the college as a mosiac, varying by course, instructor, program, and so on, through which the student winds an academic "career." However, by focusing on the demands of the institution--the way curriculum is created, the classroom interaction as the lesson is "taught," the students' strategies for dealing with the school--we tend to underemphasize the plight of the student whose failures here and there in his or her school career results in an ultimate failure with the school as a whole. There is, in other words, another level on which we must try to think of the literacy demands of the school as a whole and at the same time concentrate on the problem of why students fail at this level: the academic reasons why they drop out of, or are suspended from school. To look at attrition in this way raises several important theoretical and practical issues.

We have suggested in other sections of this report that the knowledge students acquire in the classrooms of the college may be only problematically related to their success outside the school in attaining their occupational aspirations, and that the knowledge gained in one classroom may contradict or be inconsistent with the knowledge acquired in other classrooms. If such findings be generalizable they have stark implications for the quality of literacy development that goes on in the college, or for the uses of literacy in society. A consideration of the problem of attrition gives us an opportunity to look beyond individual courses or programs and to consider the role that literacy plays in the student's ability to succeed academically in school, to sustain an academic career.

Studying attrition also has important practical implications. It allows us to consider some of the assumptions underlying institutional definitions of attrition and to examine the procedures by which institutions attempt to monitor the successes or failures of their students. Attrition is important because literacy development programs (the developmental or remedial programs) and counseling programs are sometimes justified or evaluated in terms of their role in preventing attrition. The relationship of attrition to literacy is particularly crucial in the community college setting where there is growing pressure for concentration on "basic skills," and tougher academic standards which, according to their proponents, will reduce attrition in the long-run, but which in

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This chapter was written by Jan Nespor.

the short run have produced massive increases in dismissals and suspensions (see Middleton, 1981).

Overview of this section

"Attrition" is one of the most highly visible and politically important issues in education. It is also one of the most ambiguous. The first section of this report considers some of the sources of this ambiguity in the conceptualization of attrition and in the organizational practices used to measure it. This consideration leads us to the conclusion that, for the present study at any rate, the concept of attrition is of little value for studying the academic problems that students encounter in the community college. We then offer an alternative framework: that of studying students on scholastic probation. After discussing some of the general problems of trying to use aggregate data produced by colleges on attrition and probation, we present the findings of a rather limited study we conducted of students on probation. These findings are of two sorts: (1) an analysis of some visible trends and relationships in the records of these students; and (2) a summary and discussion of the information we derived from interviews with students on probation. These findings (especially those derived from the interviews) are highly tentative and are offered primarily to help others generate hypotheses and direct future investigations and to provide a basic level of information for developing policy in community colleges.

Conceptualizing Attrition

Attrition, everyone seems to agree, is a major educational problem. For example, the request for proposal from which this project grew claims that despite the efforts of many community colleges to provide developmental education and effective counseling many students fail to complete their two-year education programs. For instance, present research indicates that some 80% of Spanish-speaking persons attending institutions of higher education are attending community colleges. However, the same research indicates a very high dropout rate among community college students. After a regular two-year program only 13% of the Spanish speaking complete their programs and only 6% transfer to four-year colleges (RFP:3).*

Such statements, and they are common enough, seem to make the assumption that all students entering community colleges do so with the intention of completing a two-year program and acquiring a degree. Briefly, we can point to some evidence to suggest that this assumption is not tenable.

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*The writers of the RFP did not give a reference for the research they cite, and the figures they give are a little puzzling. According to statistics cited in de los Santos, Montemayor, and Solis (1980) only 41% of Hispanics in higher education nationally are enrolled in two-year colleges. The percentage is the same for the State of Texas, where the present research was conducted (Ibid:11, 32, 35). The 80% figure referred to in the RFP seems to be based on the situation in California, where slightly over 81% of all "Hispanics" in higher education are in community colleges (Ibid:41). The significance of the "completion" rate cited will be discussed.

"Students enter the community college with the intention of completing a degree program and acquiring a credential." At the very least, one would have to qualify this statement with reference to the various types of programs offered in community colleges (e.g., "transfer" vs. "vocational"). Commenting on the Statewide Longitudinal Study for community colleges in California, Sheldon notes that fewer than 10% of vocational students in the study "plan to complete a certificate or degree in a vocational field" (M. Stephen Sheldon, letter to W. W. Wilms, June 30, 1980:2). He goes on to state that "...the words 'graduate' and 'dropout' have little meaning for community college vocational students" (Ibid:3). Further qualifications should probably be made to take into account regional variations and differences in the labor markets served by the community colleges. At any rate, a questionnaire administered by one of the site colleges of this study during registration for a spring semester shows over 41% of students in vocational programs stating that they intend to acquire a two-year associate degree. For all credit programs, just under 32% seek associate degrees.** Many students (over 50% for all the major programs types) plan to take only "selected courses" at the community college to fulfill a variety of aims: the improvement of existing job skills, preparation for entry onto the job market, university transfer credit (almost a third of "vocational students") and "personal interest" (about 10% of the total). Clearly, the assumption that all students aspire to a degree is untenable.

The stress on the importance of "attrition" and "dropping out" in the RFP and the assumptions underlying this imputed importance give rise to a very widespread phenomenon in education: attrition and retention are seen as vitally important measures for the evaluation of schools and school systems, data on them become vital resources in the politics of funding and administration. This induces state and federal agencies, and the institutions themselves to produce statistics on attrition, statistics which are then often used uncritically to assess the performance of the institution, or as "evidence" to back up requests for additional funds or new programs (for example, expanded developmental studies or counseling programs). However, the official statistics of attrition are derived through a number of disparate procedures based on a variety of incompatible assumptions. We can note three dimensions along which attrition studies vary: student-specificity, institutional-specificity,

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**There are numerous problems with this survey--for example, it was administered during the registration process, a time at which one can assume the students were distracted and perhaps yet uncertain of their goals. Again, the survey may be indicating aspirations rather than firm plans or expectations. We have no way of determining how many of the students participating in this survey actually received associate degrees, but the relatively small number of degrees awarded by the college make it certain that nowhere near 40% had actually received degrees two years later. (It was closer to 5%.)

and time-depth. (See Terenzini, 1978 for a different treatment of approaches to the study of attrition.)

"Student-specificity" refers to whether the attrition study follows a single cohort of students through its academic career. A study which was student-specific would, for example, take cohort A, entering college in a certain semester and year, and then check periodically to see how many students in that cohort were still in school at later dates. Often, however, especially in statistics produced by state agencies, one often finds non-specific statistics. For example, de los Santos, Montemayor and Solis (1980) report data from state agencies which simply gives the number of "hispanics" enrolled as Freshmen in a given year and compares this with the number of "hispanics" enrolled as Sophomores in the same institution in the following year. Any decline is reported as "attrition." Obviously, there is a great possibility that the "attrition" rate will be understated--in fact, as the authors note, it is not uncommon to find increases from one year to the next in four-year colleges (e.g., more sophomores than there had been freshmen in the preceding year)--does this mean there is no "attrition," or negative attrition? At any rate, we can see that this method of measuring attrition might have some advantages to administrators wishing to soften their attrition figures. De los Santos et al. also make the tentative suggestion, based on the comparison of "attrition" rates of community colleges and four-year colleges in the same cities, that

> ...the least losses or highest gains at the sophomore and junior levels are recorded at senior institutions where the community college in the same area experiences the greatest attrition....Apparently much of the 'attrition' noted in this study is the result of positive transfer to senior institutions rather than of dropping out (de los Santos, Montemayor, and Solis, 1980:93)

This finding suggests the importance of the second dimension we have identified in attrition studies: institutional specificity.

"Institutional-specificity" refers to whether the attrition study follows the student after he or she leaves the institution conducting the study. In other words, does the study distinguish among students who quit school to go to work, students who transfer to another college, students who move away from the area, and so on. Cope and Hannah note that in many cases:

> From the perspective of the specific institution, a dropout is any loss of registration and failure to complete a degree program and therefore, anyone leaving the college without a degree is a dropout (Cope and Hannah, 1975:2).

Note the influence of credentialism discussed above, on this definition. This type of definition of attrition is extremely common. It is used, for example, in a recent study conducted for The American College Testing Program and the National Center for Higher Education Management Systems (Beal and Noel, 1979):

> The one-year figures represent the number and percentage of students who matriculated in specific years and who were still enrolled in the same institution after one year; the two-year figures represent students still enrolled in the same institution after two years. Graduation figures represent students still enrolled after three or five years (Ibid:1-2).

As Cope and Hannah note, this type of definition

> ...overlooks a substantial proportion of students who simply transfer and also may include the growing number of 'stopouts,' those who leave their college for a temporary period...Many students simply terminate their enrollment when their objective is to take a few courses or they just wanted to start college without intending to finish (Cope and Hannah, 1975:2).

To use such an institutionally-specific definition of attrition, then, muddies the concept--such data reveal nothing certain about the students who leave the school. The problem is widely recognized, but there are great difficulties in overcoming it. To find out what happens to students after they leave the institution, assuming the number is large (as it usually is), requires much dogged effort. Cope and Hannah list a number of techniques to be followed and then admit that "Two or three follow-up mailings must be anticipated if returns are to exceed 60 or 70 percent" (1975:98). They offer no opinions on about what might be considered an adequate response rate, although they refer to a response rate of "nearly 80 percent" as a "high response rate" (Ibid.). As far as we know, no distinction are made in terms of the demographic, social or academic performance data available from the school, in the types of students who respond and those who do not. (Obviously, this would be an expensive process with a group of large size). Yet, how can you decide whether even an 80% return is sufficient if you have no information about the characteristics of the responding group compared with the characteristics of the nonresponding group? This being said, we must point out that Cope and Hannah are much more responsive to this problem than the vast majority of institutions. Many colleges simply never attempt follow-up studies of the students who leave their schools; probably the majority of those who do perform such studies do so in a perfunctory manner, sending out only one mailing of their questionnaire. For example, the statewide follow-up of "non-returning students" in Texas had only a 28% response rate (Tex-SIS FOLLOW-UP, Monograph 7 (November 1977), p. iv)**--approximately the same rate of response as

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**The "average response rate" given in the text is 35%. This was obtained by adding up the response rate percentages and then dividing by the number of colleges in the study. We took the actual initial population for all of the colleges and then divided it into the total responses for all the colleges. The authors of the monograph apparently used their unusual method of acquiring an average response rate in order to make the rate look higher than it actually was.

that of our major-site college. Moreover, these inadequate response rates are usually mentioned only once, usually in a preferatory section, while in the body of the report, without qualification, we are given such "findings" as "-- 79.8% of the respondents expressed themselves as satisfied or very satisfied when asked to describe feelings about their educational experience at (the college)." Clearly, one must be very sceptical of such findings when they are based on a 28.7% response rate and when we find that over 80% of those responding state that they are planning to continue their college education.* There may be some self-selection for more successful students, or students with greater aspirations.

The third dimension along which attrition studies may vary is "time-depth," that is, the length of time for which the student-specificity study follows the student. For example, Cope and Hannah use a definition in which dropouts are students who permanently fail "to obtain a degree from any college" (Cope and Hannah, 1975:2). The question in this instance is how long does one allot the student before deciding that the failure to obtain a credential is "permanent"? There seem to be unquestionable data indicating that a large proportion of students do not acquire their degrees in the organizationally-specified period of time. At the University of Texas, for example, only 33% of those who entered the college as High School graduates have graduated from the university after four years; after five years over 52% have graduated--what would happen if the time frame were extended to six years? Perhaps little. The point is that one must make some decision about an adequate time frame--there must be temporal paramenters to the study (if only because of funding limitations). However, it is important that one does not simply accept the institutional definition which says that, for example, a student in a two-year college will get a degree in two years or be counted a "permanent failure." Indeed this seems counter-intuitive when one considers that in many community colleges a majority of students are attending classes part time and couldn't possibly get a degree in two years, even if they wanted to. (At the major site college of this study, for example, over 70% of the student body attended classes part-time).

Studying Students on Probation as an Alternative to Studying Attrition

It may have occurred to the reader by now that we are devoting an inordinate amount of time to something we consider an illusory pseudo-problem: attrition. However, as in the case of many other pseudoproblems, there is a hard kernel of genuine importance at the center of the attrition question. This is the issue of those students who are forced to withdraw from the college, either because of the lack of adequate resources and services, or because of scholastic failure (which may be related to the resource issue). We feel that this is a distinct issue from the study of those students who transfer to other colleges, move out of the state, or who leave after taking a few courses, successfully never having intended to do any more than than. We had a special interest in those students who experienced considerable academic difficulties in college and whose dropping out could be inferred to be a result of those academic difficulties. We assumed that in many cases those students who experienced these difficulties would be identified by their academic performance. The following section describes how we developed this approach to the study of student problems and dropping out.

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*We should note here that the definition of who counts as a student is significant in attrition. In the Tex-SIS study discussed here "non-returning students" are referred to as students who have completed 12 or more semester hours, and who then fail to enroll in consecutive long terms. Automatically excluded are those students, and there are many of them, who languish in the college for a semester or two, collecting W's or incompletes, and who then drop out. Stop-outs, on the other hand, are counted repeatedly.

Our first attempts to acquire statistics attrition were part of a larger effort to get general statistics about the college. We assumed that there were statistics on attrition.

In the beginning of the second year of the research, negotiations were begun with a high official in the college to get some general descriptive data on the college. In response to the official's desires we put our requests in writing. We asked, for example:

> How many full-time, part-time faculty, total; then on each of the campuses named above, breakdown by program area (vocational, academic, other). Broken down by ethnicity.
>
> How many students, total (FTE and other units you may use, such as headcount), ethnic breakdown (total), sex breakdown (total); then by campus (ethnic and sex and total); then by program (total, ethnic, sex).
>
> Follow-up statistics on Developmental studies programs.
>
> Attrition data (including the college's definition of attrition), by program (further broken down by ethnicity, sex) and by campus (ethnic, sex).

We assumed, somewhat naively, that this sort of information would be available from "computer-stored information or other central records." The high official did not answer us directly but sent us to a lower-level official who was to "coordinate our research activities" with the institution. Someone to whom we would send "monthly progress reports" and through whom we were to make all requests for "computerized data and institutional documents." This official informed us that for some of the data we wanted we would have to go to divisional chairpersons on each campus (e.g., for the data on developmental studies); and that for the attrition data we would have to go to another official in the central office--the person in charge of running the institution's part of the statewide Tex-SIS (Texas Student Information System) program, the statistics from which are mentioned above. Several months later we had received from this official a collection of reports and data summaries which had been constructed by the college for public consumption as part of a public relations campaign. These supplied some valuable data on enrollment for the total college and broken down by campus (with breakdowns for student characteristics such as sex, age, ethnicity, entrance status) but not the breakdowns by programs. These statistics covered only a two-year span (we did not know it at the time, but these were the first such reports that the college had ever developed--save one similar report by the registrar. In other words, there was no perceived need, or at any rate no commitment of funds, for such data reports until the beginnings of the public relations campaign.). We had talked to the divisional heads of such programs as developmental studies, who told us that they would like to have follow-up studies of their students, but that they had never had the resources to conduct such studies. As for the data on attrition, we had been told by our "contact" person that the college could not release the names of students who had dropped out. One very good reason why the college could not give us the names of students who had dropped out was very simply that no one in the college knew who had dropped out. However, we were told that we could have "lots of general anonymous information related to follow-up activities"--in other words, the data that were used in construction of the Tex-SIS reports. We began to suspect about this time that these Tex-SIS reports were the only data the college produced about attrition.

The Texas Student Information System (Tex-SIS) was developed for the Texas Education Agency to provide:

> ...management information...for the identification of the diverse goals for which students enter community college programs, as well as provide information regarding the extent to which these goals are achieved... A major focus of the project is to provide information that is important to local planners and managers of educational programs, while collecting data and transmitting this data that will meet reporting needs at the state and national levels (Sixth Annual Report of the Advisory Council For Technical-Vocational Education in Texas, October, 1975:28).

As we interpret these statements, the Tex-SIS is designed first and foremost to meet state reporting needs. (Each summary monograph has a "Compliance" page stating that in compliance with Title VI of the 1964 Civil Rights Act, and Title IX of the Educational Amendments of 1972 the Texas Education Agency conducts periodic reviews of local education agencies, etc. But the text does not reveal just how the Tex-SIS reports are supposed to fit into this compliance.) We have already noted that at the local level the surveys are conducted perfunctorially and have a low response rate. At the time we were negotiating with the college for official statistics on attrition, however, we knew none of this. When we mentioned "attrition" to our "contact" at the college, he interpreted this in terms of the only data which the college routinely collected--the Tex-SIS reviews of "non-returning students." This is a general problem in using official statistics: the organizational definitions and procedures used to categorize people are in all likelihood not exactly what the researcher expects or wants; the organization's definition of "drop out" was considerably different from our still somewhat hazy idea. At any rate it was not until four months into the second year (after a number of memos to the college reminding our "contact" that we had requested such information), we finally received a number of large computer printouts. The closer we examined these printouts the more their usefulness seemed to diminish. In the first place, as already mentioned, to fit into the category "non-returning students," the student had to have completed 12 hours at the college, and then have not re-enrolled--this in effect excluding all those students who "dropped out" before completing 12 hours. Worse, the response rate had been very low (under 30%) which meant that even though there were breakdowns by ethnicity and by "reason" for not returning (though these categories were vague) there were very few respondents in these categories. (Also, we were given only the overall response rate--we weren't given response rates for, say Anglos as opposed to Blacks, and Hispanics). There were also breakdowns by the major of the student, but with such low response rates this meant that for the majority of majors there fewer than 10 respondents--in some cases only one or two. (At the time, we had no idea how many students there were in each major). The questionable definition of the drop out as a "non-returning student," the poor response rate, and the vaguely-worded questions (along with the fact that students would often check more than one category for questions on why they were not re-enrolling--and more than 10% simply checked "other" on this general question), made us very skeptical of the general usefulness of this data.

The Scholastic Probation Study

Suspicious of the available data, and having no means of gaining access to groups of students who were either dropping out or who were having academic difficulties in the college, we suspended our plans for studying attrition indefinitely. Some attempt was made to contact students who dropped out of classes in which there were research associates observing. (These interviews are discussed in the accounts of programs and courses. There is a general discussion of the problem of withdrawal from individual classes below.)

Early in the third year of the research, some chance conversations with school officials introduced the prospect of an alternative means of studying students who were having academic difficulties in the college. We were told that there were a large number of students in the college on "academic probation" and that the college lacked the resources to contact them or find out anything about these students. The college administration seemed unwilling or unable to make any commitment to institute programs to aid these students without first having some research evidence characterizing the students' predicament. This suggested to our research staff a way to investigate attrition and literacy questions at the same time.

One of the bothersome problems that had arisen out of the research was that there seemed no way to gauge the absolute relevance of "literacy" in the community college. Our classroom observations had revealed widely varying standards for the use of written language among the courses and programs of the college. Literacy "skills," by whatever definition one wanted to use, seemed to have no intrinsic relation to the student's success or failure in the school. By studying students on probation, however, we would be dealing with students who by definition were failing by the institution's standards. If it were unclear what literacy had to do with school success, perhaps it would be easier to determine what, if anything, school failure had to do with literacy. Using scholastic probation as a defining characteristic, moreover, promised to eliminate many of the problems encountered in using attrition data. We hope that by this method we could exclude all of those drop outs who had left school for non-academic reasons (the people who moved away, or transferred, or had simply dropped in to the college for a few selected courses in the first place). Lastly, studying students on scholastic probation seemed to be a good way to get around the problems we had encountered with the college's official statistics: we were told that it would be possible to obtain data on all of the students on scholastic probation or suspension.

It was hoped that our research into this area would not only answer some of the questions generated by our research, but would at the same time be of immediate practical use to the college by providing them with the research they needed on probation students. It was with these assumptions that we began our work.

The data we obtained from the school on students on scholastic probation or suspension came in the form of computer printouts containing the names of the students, their admission status (e.g., transfer, high school graduate, GED), their age, their majors, the date of their entry into the college, and their address at the time of entry. In addition, these printouts contained the records of these students' academic performance at the college--we will refer to these records as the students' "transcripts." The transcripts were broken down for each semester in which the students had been enrolled in the college: course numbers, number of credit hours attempted, and grade. There were summary computations of grade point average and hours attempted and completed given for each semester, and cumulatively for each following semester. There were also "evaluations" made on the students' performance for each semester. The student was usually given "no evaluation" after the first semester enrolled--apparently, the students must complete 12 hours before being given a substantive evaluation. However, this was not consistent and some students were given evaluations after their first semesters without having completed 12 hours. The second possible evaluation is "Good Standing," which is defined in the college catalog as: "...the maintenance of a cumulative grade point average (GPA) of 2.00 of better." For a student to be evaluated as on "Probation" he or she must have a "...cumulative grade point average (GPA) at (the college)...below 2.00 but is still 1.50 or higher." Finally, a student will be evaluated as being eligible for scholastic "Suspension" if their "...cumulative GPA at (the college) falls below 1.50 (or below 2.00 in the previous semester of attendance)...." Having given these definitions, we must immediately note that the school's criteria for these evaluations had changed in the year prior to our study. Before that change, the "good standing" evaluation applied only to a

> ...student attempting two or more courses in a semester or a student enrolled in one course of at least six semester hours value (4 semester hours value during the summer session) (who) must complete (with a grade of A, B, C, or D) at least one-half of those courses and maintain a cumulative grade point average of 2.00 or better on a 4.00 scale.

Students not meeting these goals would be placed on "scholastic probation" and were required to "remove the probation" by completing incompletes, or by meeting the good standing criteria at the end of the next semester of enrollment, otherwise, they would be placed on "scholastic suspension," and thereby be ineligible, except on appeal to the registrar, to register for the following semester.

One consequence of these old criteria was that a student could end up on probation regardless of his or her GPA. For example, a student who attempted 5 courses (15 credit hours) and withdrew from 3 of those courses while making A's in the other two, would have a GPA of 4.00 and yet still be placed on probation for completing less than half of the courses registered for.

These older criteria are important because, as we discovered, a student who had been placed on probation on the basis of these criteria (before they were changed) stayed on the probation list even after they were changed. So, for example, of the 218 students in our final sample, 19, or 8.7%, had never received any grade at the college (i.e., they had no grade point average). They had simply been put on probation, according to the old criteria, for not completing for a credit grade at least half of the hours they had registered for (that is, they had withdrawn for their classes, or received incompletes). In some cases, students had actually been placed on "suspension" without having anything besides W's.

Peculiarities of the Data Base

A detailed examination of the student records revealed a number of inconsistencies: (1) Over 5% of the names on the printouts were there simply by mistake--the students were actually in "good standing." (2) About 4% of the names belong to students who had not been enrolled in the college for over two years. (3) In a few instances students who had taken a course more than once were not credited (for GPA purposes) with only the highest grade of both grades. A student who takes course X, makes an F, then takes it again and makes an A, should have both grades appear on his or her record, but there should be an asterisk by the F, and only the A should be used in the GPA computation--we were not actually looking for these cases; we simply noticed them when reviewing the data. (4) The sheer bulk of the printouts, and the fact that the majority of the students listed were no longer in the college (the data was processed after the completion of a semester) made them difficult to handle. (5) The addresses on the records are not updated from the time the student first enters the college, making follow-up efforts difficult on students who have been in the college for more than a few semesters.

We were given two sets of printouts, one containing the records of students who had been placed on probation at the end of the spring, 1980, semester, one containing the names of students placed on probation those students who were enrolled in the fall, 1980, semester: a total of 218 students, a "retention" rate of 34% (Breaking this down, the summer-to-fall "retention rate" is 45%, while the spring-to-fall "retention rate" is 30%. There are no student-specific rates for the college as a whole with which to compare these.) Table 1 contrasts some of the characteristics of this group with the total college population:

TABLE 1. (In percentages)

	Male	Female	GED	Transfer/ Transient	HS grad	17-22	23-30	31-40	41+
Probation Students (N=218)	65.6	34.4	9.6	39	46.3	58	33	5	4
Total College (N=12,266)	49.7	50.3	6.4	49.6	42.3	42	35	15	8

First, we must note that the 218 number is not a certain total for all students on probation and enrolled in the fall, 1980, semester. The printouts we had would not have included the names of "stop out" students--students, for example, placed on probation at the end of the fall, 1979, semester, but who had not re-enrolled in the college until the fall, 1980, semester. The number of students on probation may also vary from fall to spring semesters. A rough count of the students on probation and enrolled during the spring, 1981, semester gave a number in the mid-500s. We suspect there is a greater attrition rate between spring-fall than between fall-spring.

Findings from the Analysis of Student Records: Nonproductive Grades, Repetition of Courses, Prerequisites not Taken

A close examination of the transcripts revealed that many of the students who are listed as officially having "No major," or being "undeclared" do in fact have majors, inferable from the types of courses they are taking. That is, a student would be listed as "undeclared" but would have taken all or the great majority of his or her courses in one major. Thirty-two percent of the students who were listed as "undeclared" in our sample fit into this category. The distribution of probation students in the different majors was proportionately similar to the distribution for the college as a whole (except that the percentages of "undeclared" probation students was lower--but this was due to our deciding to count students with heavy course concentrations in one program as majors in that program).

Nonproductive Grades

Grades which do not carry credit and are not used in the computation of the GPA are considered "nonproductive." These would be W's (withdrawals); I's (Incompletes), and NC (no credit). In a recent review article on this topic Friedlander (1980) suggests that it is not uncommon to find that over "20% of the grades...(in a given community college) are nonproductive" (p. 57). He cites a study of California community colleges which "revealed that students were completing only 64 percent of the credit units for which they were enrolled in the first census week (fourth week of the term)" (Ibid.). In our sample of 218 probation students we found that over 86% of the students had received at least one nonproductive grade and that almost 44% of all the grades these students had received had been "nonproductive." W's alone accounted for 34.2% of all grades.

While these figures look significant, it is a bit difficult to know what to make of them. The college makes a distinction (although it does not show up on the transcripts) between "student-initiated" and "teacher-initiated" withdrawals. Student-initiated withdrawals are those in which the student fills out an official withdrawal form. An instructor-initiated withdrawal, however, means that the instructor simply gives the student a grade of W without any initiative on the student's part. According to the college, the instructor-initiated withdrawal may signify either that the teacher has simply removed the student from the rolls (e.g., for non-attendance) or that the W represents a "passing grade." However, at least in the case of non-attendance, the assignment of a W by the instructor is a discretionary action. There are no rules or guidelines covering the matter, and an instructor could just as easily give an F to a student who simply stops attending and does not fill out a withdrawal form. We know that this does happen, but we have no way of guessing how often. As for the proportion of all grades which W's represent, we have no data. The college has conducted only one study of withdrawals (as part of the Tex-SIS program mentioned above), and the figures are slightly confusing. In the semester studies, the report tells us that there were 524 student-initiated withdrawals, 1001 instructor-initiated withdrawals, but 2,074 W grades (with a total enrollment of 7,904). There is no indication of where the 549 other W's came from. We can, therefore, not say whether the percentage of noncredit grades given to probation students is unusually high in relation to the rest of the college. The matter of NC's and I's is a bit more complicated. There is, theoretically, a limit on the length of time a student can carry an I, after which the grade is changed to F. However, in examining the transcripts we found a number of cases in which I's were carried long past this time limit. We are not sure why this is so. Changing I's to F's is to some extent a matter of discretion to individual instructors and departmental and divisional heads. Long-standing I's may also be the result of inconsistencies and bottlenecks in the recordkeeping system of the college. The NC grade was originally intended to be a non-punitive grade lacking any implication that the student was doing poorly in the course. However, after awarding this grade for over five years, the college discovered that four-year colleges in the area routinely counted the NC as an F in calculating the GPA of students trying to transfer from the community college. The college then discontinued the grade, but many students still carry them on their transcripts. (This seems to be a general problem with the community colleges' attempts to give "nonpunitive grades" (see Friedlander, 1980: 58-9). Many students are not aware of this problem with the NC's, and there seems to have been no general announcement of the problem by the college. Some four-year colleges also calculate I's as F's in making grade point averages. There were no indications that W's were counted in GPA calculations by any four-year college, although some admissions officers indicated that a disproportionate number of W's might be taken into account in the case of a borderline student.

Repetition of Courses by Probation Students

Fifty-six percent of the students in our sample of 218 had taken the same course more than once, some had taken a course as many as three of four times. The general pattern is that the student enrolls in a lower level or introductory course, withdraws, and then re-enrolls in a later semester. Some students have withdrawn from the same course as many as four times. Less often the student makes a poor grade (F or D) and re-takes the course in an attempt to improve the grade. Only 25% of the students who had repeated courses had made grades of C or above on repetition. Over 28% of those students who had received credit grades (A-F) more than once for the same course had both of these grades counted in their GPA calculations (according to the school catalog only one of these grade--the highest, or the last recorded entry if both are F's--should be used in GPA calculations.).

Again, as with the other characteristics of these probation students that we cite, we cannot compare this practice of repeating courses with the practice of the general school population.

Taking Courses Without Taking the Prerequisites to Them

Ninety-six of the 218 students in our sample had enrolled in courses for which there were prerequisites without having first taken those prerequisites. The matter is complicated because the relationship between courses and their prerequisites vary by program. In some programs (English, for example), there is a strict hierarchical relationship between courses. Students must take Freshman English before they are allowed to enroll in English courses (e.g., technical communication) which lists Freshman English as a prerequisite. In practice it is impossible for the English instructor to check the students' transcripts at registration, and, the instructors claim, students may lie at registration about having completed the prerequisite in order to get enrolled in a class. These students may be dropped from the class in which they've enrolled if they are discovered during the course of the semester. However, if they manage to go through the entire semester and pass the course, after which someone discovers that they haven't taken the prerequisite, the school can place a "hold" on the students records until the prerequisite is taken. (We heard of no instance in which students' records were actually withheld.) This rather rigid bureaucratic behavior seems to belie the proposed relationship between Freshman English and the courses for which it serves as a prerequisite. If it were actually the case that the knowledge taught in Freshman English were necessary for success in higher level English courses, then one might suppose that successful performance in those higher level courses would count as a demonstration of competence in the areas covered by Freshman English. The insistence that students take Freshman English, and the punitive sanctions against those who avoid it suggest that Freshman English does not function merely (if at all) to prepare or equip students for other courses they will have to take in the college.

In other programs, the relation of courses to their prerequisites is less rigid. Many of the courses which list prerequisites allow the student either to take the prerequisite or to gain the "consent of the instructor"--such consent often being given on the basis of subjective and inconsistent criteria. Still other programs, Math is of particular interest, try to assess the abilities of enrolling students through tests and then to place them in the appropriate level class. The assessment procedures for Math have been described elsewhere. Here we simply remind the reader that there are inconsistencies in these procedures and that any any rate there are no official sanctions against those students who choose to ignore advice given on the basis of these tests. We note here that in the case of Math, unlike English and some of the other programs with prerequisites, there is good reason to believe that possession of the knowledge taught in the prerequisite classes is a necessary condition of success in the higher level classes. (Though as we have shown, there may be inconsistencies in Math courses taught in different departments; they may not be related hierarchically, e.g., math and developmental studies).

A further point is that courses with prerequisites are sometimes required courses in other programs. For example, most of the math courses required in the various business programs have prerequisites; but the student majoring in a business program may ignore the prerequisite since it would not count in his or her degree plan and would simply extend the amount of time one had to stay in school.

The significance of these problems with the prerequisite system is, however, difficult to gauge for the entire college. We know that it appears to be a great problem for the students on probation. Forty-four percent of these students have enrolled in courses with prerequisites without having take the prerequisites. Of the 130 grades made by these students in such courses, 38% were W's, 30% were F's, 15% were D's, 8% were C's, 3% were B's, and 6% were NC's or I's. Almost 11% of all the F's and D's made by all of the probation students were made in these courses.

We did a detailed analysis of which courses with prerequisites were the most often enrolled in by probation students who had not taken the prerequisites and found that they were primarily math courses--the elementary and intermediate algebra courses in particular; English and Electronics were the two other programs in which this took place. This finding, however, is simply a manifestation of the fact that the Math program is the program in the college most highly structured with prerequisites. Again, it is difficult to draw any specific conclusions from this analysis: it is possible, for example, that these figures reflect a flaw in the assessment procedures for math--the students may not have been assessed; there may be a flaw in the assessment instruments. Even if these students were assessed with an accurate instrument, it is quite possible that they simply ignored the recommendation made on the basis of the assessment. Finally, it is, of course, impossible to draw any broad conclusions without having a sample of students who are not on probation--perhaps taking courses without prerequisites is a commonplace for all types of students and it simply implies that probation students do poorly in all of their courses. In this regard, it is possible to suggest that, in fact, Math courses are graded "harder" (more F's and D's given) than other courses simply because there are more "objective" and explicit criteria for evaluation in math--but this is mere conjecture.

Assessment and the Usefulness of Remedial/Developmental Classes for Probation Students

Since there is a good deal of controversy over the need for and potential benefits of the preassessment of students, we decided to try to determine how many of the 218 students on probation or suspension had been to the new student orientation, had taken the standardized reading test, and had submitted a writing sample. We could obtain the results of these assessment instruments for only two semesters. We, therefore, used as our sample only the 110 students out of the total of 218 who had entered the college in those two semesters. We found that 32 students, or 29%, had attended new student orientation. This is actually a little better than our estimate for the percentage of all new students who attend new student orientation (25%). Twenty-five of these 32 students took the standardized reading test (five of these seven were excused because they had taken more than 24 college credit hours; the other two apparently just refused to take the test). This is how they did on the test:

12 scored above the 13th grade level
3 scored between the 12 and 12.9 level
4 scored between the 9 and 11.9 level
4 scored between the 6 and 8.9 level
2 scored below the 6th grade level

Eight of the 32 students did not submit writing samples (all students attending new student orientation are supposed to submit writing samples, but it is not difficult to avoid doing so). Of the 24 students who did submit samples:

15 received no recommendations to developmental studies
6 received recommendations to Developmental Writing I
3 received recommendations to Developmental Writing II

We stress again that caution should be used in making anything out of these numbers. Still, it would appear that these assessment tests are not particularly good predictors of "success" and "failure" in the college (defined here as staying off of, and getting on probation, respectively). Only those students who score below the 12th grade level on the standardized reading test are advised to take developmental studies (i.e., are defined as "high risk" students). In this sample, 60% of those tested scored above 12th grade level, 40% below--this is almost exactly the same as the proportion above and below 12th grade level in the entire population of these tested (59.2% above, 40.8% below). To simply say that those scoring under the 12th grade level and considered "high risk" are not disproportionately represented among the students on probation masks a curious figure, however. What we find is that of the group who attended orientation those who scored over the 12th grade level are proportionately represented among probation students (we would expect them to be underrepresented if the test was a good predictor of academic success), that those who scored below the 9th grade level are overrepresented among the probation students (15.5% of all those tested were below 9th grade level, 24% of the probation students tested were below this level), and that those students who scored between 9 and 11.9 grade level on the test are underrepresented (25.5% of the total group, but only 16% of the group of probation students tested).

Of the six students who scored below the 9th grade level on the standardized reading test, three had taken developmental studies reading classes--one student had taken nothing but developmental studies classes and was on probation because of a mistake in computing GPA (he had taken the same course twice, made an F the first time, a B the second time--only the B should have been used in GPA calculations. Instead both were counted.) Another of the six students scoring below the 9th grade level had taken and failed math courses taken without having completed the prerequisites. We could not determine the reasons the other two students in this group scoring below 9th grade level and not taking developmental studies classes were on probation.

About the impact of developmental studies classes on students on probation, we can say little. Only about 12% of the students on probation had taken developmental studies classes, but we have no idea of how this compares with the percentage of students in the general school population in developmental studies courses (we have only headcount enrollments for these programs, and we know from observations and from examination of these transcripts that students are often enrolled in more than one developmental studies course at a time--thus, the headcount figures would overestimate the percentage of all students in the college in developmental studies classes). We have no way of estimating the effect of the developmental programs in keeping students off of probation--we see a great many diverse relationships in the transcripts we have: some students who do poorly in all their courses, developmental and traditional; students who do well in developmental courses and poorly in their traditional courses; and even a few students who do well in traditional courses and poorly in developmental courses (there was one student who failed intermediate developmental reading--thus getting himself on probation after having made C's in both Freshman and Sophomore English courses). One point we can make is that, at least for this group of probation students, there was a relationship between entrance status and enrollment in developmental studies: that is, students entering the college with GED's seemed slightly more likely to take developmental studies courses; GED students, who made up less than 10% of the total sample, accounted for just under 25% of the students who had taken developmental studies courses. Put another way, 25% of all GED students in the sample had taken developmental studies classes, while only 10% of high school graduates and 6% of transfer students had taken such classes. Again, one cannot draw very strong conclusions from this: it could be that there is a sort of tracking mechanism at work in which GED students are advised into developmental studies classes, or it could be that GED students do worse than other students in developmental studies classes (and thus show up more often on the probation roles)--possibly both of these things occur.

The Ethnicity of Probation Students

None of the student records to which we had access noted the ethnicity of the student, and we had no direct means of ascertaining it (mail or telephone surveys were prohibited by lack of resources). We, therefore, plotted the residence patterns of the students by zip code and tried to compare this to what we knew about residence patterns for the total school population and for ethnic groups in the city. Such a procedure is fraught with difficulties: the school has released information about residence patterns only in terms of six large areas, defined by highways and rivers and far from socially or ethnically homogeneous; on the other hand, census tract figures, besides giving us data over a decade old (the 1980 census had not been published at this time), do not correspond exactly to zip code boundaries. Finally, in addition to these statistical uncertainties (and the danger, of course, of the "ecological fallacy"), we cannot present maps and figures in any great detail without almost certainly revealing the identity of the city in which this study took place. In the face of these problems, however, we make the conjecture, and feel there is supporting evidence, that Black and Hispanic students are greatly overrepresented among the students on scholastic probation.

Interviews with Probation Students

The information derived from the student records is suggestive, but more questions are raised than are answered: questions of process and causation. To answer some of these questions we sought to interview a number of probation students in depth. The difficulties we encountered in this attempt are worthy of a brief digression.

Most of the student interviews that have been conducted in the course of this project have been between students and the researchers who had been in these students' class for some time prior to the interview--time to establish recognition or an identity, if not rapport. For the probation studies, however, we had only names and phone numbers. The existence of the project on literacy development had been announced in student newspapers, but students, even in the classes we were observing, rarely recognized the title of the project or understood its purposes or procedures in any great depth. Researchers seeking to set up interviews with probation students, therefore, had to establish their legitimacy and try to explain the purpose of the project over the phone to students who had never heard of them before, who often worked as well as attending school, who are in general suspicious and busy. Predictably, many students simply refused to talk with us. Those who did agree did not abandon their suspicions. On several occasions researchers were asked to meet probation students in public places--e.g., restaurants. One student gave consistently different addresses to a researcher, who twice went out knocking on doors asking to interview someone whom the occupants of houses claimed they did not know. One of the students had been refused admission to the University of Texas, and on learning that the researcher was a student at the University spent the rest of the interview praising the community college at the expense of the University. The end result was that only 10 students were interviewed (one twice). In addition, we found that 6 of the students on probation had been previously interviewed in connection with classroom observations--giving us useful data, though not focused on issues raised by the probation study.

These 16 interviews do not provide us with a representative sample of scholastic probation students (that is, we have no way of determining how representative a sample it is), and the interviews themselves are of uneven depth and detail. Such as they are, however, they provide us with some idea of the diversity to be found among probation students, and they give us rich data usually unavailable in survey research. Below are some background data on the students interviewed:

SEX		ENTRANCE STATUS		ETHNICITY			AGE			
M	F	HS	GED	Black	Mexican-American	Anglo	17-22	23-30	31-40	41+
11	5	12	4	6	4	6	8	5	1	1

Nine of these students had plans to continue their education at four-year colleges and receive Bachelor's degrees; twelve had seen counselors, and five had taken developmental studies courses.

Introduction to the Findings

While no detailed interview schedule was used in this study, we did attempt to structure the interviews around several major topics suggested by the analysis of student records. The large number of nonproductive and poor grades and the frequent repetition of courses led us to wonder about the decision-making processes of the students. We considered first the types and sources of information available to students in making the selections (the section on "Counseling and Placement"). We then tried to look at the influences of external factors-such as work/school conflicts and instructional styles of teachers--on students' choices. Finally, we were interested in trying to discover what it meant to students to be on probation.

Counseling and Placement

We can define two broad ways in which students make selections about which courses they wish to take. (1) The student may select his or her courses without consulting a counselor, by consulting the school catalog. The students who select courses in this manner seem to be (a) those who are pursuing four-year degrees and are taking spot courses at the community college--they know what is required and what will transfer; and (b) to a lesser extent, those who have definite occupational or educational goals, that is, those students who have definitely decided what their majors will be or who have a definite idea of what courses will help them attain their occupational aspirations. There are other factors which influence whether or not a student sees a counselor--e.g., those students who enter the college with GED's have consulted counselors, almost without exception.

Perhaps more important than who sees a counselor is the question of what students expect from counselors. In the cases in which students with definite plans or goals did see counselors, they expected the counselors to simply tell them which courses they needed to take to accomplish their degree plans or acquire their skills. As one student put it, comparing the college unfavorably to another college which he had previously attended:

> Your would go in and see your counselor toward the end of the term, and he would tell you what classes you needed for your degree and then you just walked up to a girl at the computer terminal, she punched it in, gave you a receipt for what you owed, and that was the whole registration process right there....

However, the more uncertain a student is of his or her occupational or educational goals, the more they seem to expect from counselors. One student we interviewed expressed this attitude at some length:

> If I put out enough effort to make it to school, the school should at least evaluate me as to what road I should take...I was thrown into subjects way over my head..I wasn't evaluated for what kind of a mental aptitude I had of any sort...I feel that with what I've learned here is not what I was expecting in that a lot of it was over my head, and I tried to more or less keep with it...I wanted to go to school but I didn't know what I wanted. It wasn't until I started to get a little feel of the experience in school that I got a little better idea of what was going on.

It follows that the less certain the student is of his or her educational goals, the more influence the counselors have over course selection decision-making. The situation gains in significance when we notice that there seems to be a pattern in the types of advice counselors give students who lack definite plans (we stress again that much of this is conjecture--we interviewed only three students who fit in this category). We find that students without specific plans are counseled to take "the basics"--that is, what we are calling general-function courses. The logic behind this seems to be that such students should not be counseled to commit time and effort to specific-function areas if they are not sure that they wish to pursue studies in those areas: credit in a general-function course such as Freshman English is "useful" (in the sense that the course is required for a degree) in many of the programs in the college. Credit in a specific-function course--e.g., Introduction to Data Processing, is useful only for a student who ultimately majors in data processing, or as an elective in some related major. Therefore, the reasoning, as we understand it, is that uncertain students (students with vague plans) should be counseled into general-function classes. However, this has the unanticipated consequence of placing these students in a situation of facing their greatest literacy demands at the beginning of their academic careers. This may compound the problems that students sometimes have in adjusting to college in their first semester or two. As one Mexican-American man explained, commenting on why he thought he failed a Freshman English course:

> I guess it was the new surrounding, you know, the environment. I felt kind of nervous in class, you know. And it was always little bitty things that I'd mess up in English. It was just dumb little mistakes I was doing and my grades were low and it seemed like every time I wrote an essay it didn't do any good...My grades were just getting lower and lower, and I flunked English and I dropped down my hours... It was just a new thing for me...I remember I was in high school and I was, you know, being teased, I was teased by all my friends, and here I'm sitting in college, and nobody's not even talking to each other and it's a brand-new thing.

We can conjecture, then, that students facing general-function courses early in their academic careers may run an increased chance of doing poorly in those classes. In turn, a student who does poorly in a general-function class early in his or her career (i.e., makes an F or D) is in a particularly bad situation. The very fact that makes these courses seem reasonable choices for undecided students--the fact that they are required for most programs in the college--means that the student who fails such a class must continue to re-take the class until it is passed. This may account for some of the cycling, repetition of courses, that we noted in the student records.

Work/School Conflicts, Instructional Style, and Withdrawals

Our analysis of student records revealed a large number of withdrawals by probation students, along with a frequent repetition of courses from whcih students had withdrawn. Data from our interviews with probation students indicate that these practices may be related to work/school conflicts that students experience and with students' preferences of instructional style.

We must note to begin that there are two broad types of reasons given by students for withdrawing from classes. The first type is those factors over which the students have little or no control: illness, being sent out of town for job-related reasons, changes in working hours, and so on. The second type of reason is that students are having difficulty with or are dissatisfied with the course. We suggest that the second type of reason is much more important than conventional survey studies of withdrawal would indicate. This is because work/school conflicts, which are usually counted as being of the first type of reason for withdrawing is actually related closely, if complexly, to the second type of reason. In other words, the strains put on the student who has to work full or part-time do not translate into conflicts with schoolwork in any direct or simple way. Most of the students in the college, and most of those on probation whom we have interviewed, work more than half-time (most over 30 hours a week, in fact). This does put a strain on the student's resources, but it is not a general, unspecific strain; it is a strain against certain types of courses taught in a certain instructional style--these are the types of courses most likely to be dropped.

One general feature of courses that makes them likely to be dropped by students experiencing work conflicts is simply the amount of time they require the student to expend. This is generally a feature of type and function of the course rather than of instructional style. General-function courses teaching "theory"-type knowledge generally required a greater expenditure of time because they focus more on book- or lecture-knowledge, the acquisition of which the student must demonstrate by means explicit and detailed performances (e.g., writing a paper, doing homework assignments) that cannot be hedged or avoided in any simple way. Specific-function courses focusing on "sensitizing" or "recipe"-type knowledge usually required less explicit demonstrations and often allow the student some leeway reallocating time as necessary--that is, the student is required to complete some set of tasks (e.g., do X number of welds) in the course of the semester, or simply to participate in class discussion, or something of this nature. This is merely suggestive; we can give no hard indication of the comparative time requirements of the different classes. However, we do know that those classes which require the greatest expenditures of time are more likely to be dropped first. As one probation student explained to us, she had to tell the instructor of a general science course

> that I was working full-time, and reminded him that he had told me that all I needed was to study two hours a day for this course, but that it didn't appear to be sufficient amount of time. I also told him that I had four other classes and that I didn't have that much time to study for all these classes.

A second factor determining which courses will be affected the most by work conflicts is the instructional style of the course instructor. Briefly, students who have heavy time commitments to work favor those instructors who cover the course material in their class lectures and speak specifically to what will be required on the tests in the class. The teachers who "break it down good" in their lectures are preferred. As one student put it:

> ...if I have a real good instructor who explains things in class, usually I can do good on the exams without really studying. And if the instructor's dull, I don't do very well in the class.

Instructors who expand on a topic and cover material not in the textbook and not to be included on the test are a source of complaints:

> Student: Why tell us something about somebody else that we're not even going to have anything to do with? (i.e., that won't be covered on the test)? But then test on something that's inside the book that we were...kind of unfamiliar with in the beginning (i.e., something in the book that was not covered in lecture)?
>
> Interviewer: In other words, prepare you more for the kinds of information that might be required on the exam?
>
> Student: Yeah, exactly.

When one's job puts constraints on time and energy, courses taught in this style would be among the first to go. We might suggest, in fact, that withdrawing from, and then retaking courses (a fairly frequent occurrence according to the student records), is in some instances a matter of the students shopping for instructors with suitable teaching styles. At any rate, some of the probation students we interviewed laid a great deal of the blame for their problems in school on their instructors and then gave us instances of taking the same course over with a different instructor and doing much better because the instructor was "better." Withdrawing, then, may be a strategic tool for avoiding those courses which place the greatest literacy demands on students (i.e., the ones in which the instructors require the students to know things that must be learned from books, that aren't covered in lecture).

Knowledge of Probation Status and Academic Background

Two further matters of interest appeared in our interviews with probation students. First, we found that some students were not aware that they were on probation (the only means of informing students is through a note on the grade slips). One student, in fact, got through registration and only discovered he was suspended when he failed to receive his veteran's benefits. Those students who do know that they are on probation rarely know just what it entails. One student told us that, yes, he saw on his grade slip that he was on probation, "but yet I don't understand why, if I'm passing everything." Several of the students who knew that they were on probation did not think that it would interfere with their gaining a degree from the college (in fact, it does). Clearly, there is a need for some better system of explaining to the students the significance of their status on probation.

The second matter of interest has to do with the educational background of the students on probation. We found that a number of the students we talked to had been in the business or commercial "tracks" in high school, or had dropped out of high school and gotten GED certificates. We have no way of gauging the exact impact of educational background on the student's experience at the community college, but it does seem that the students who have been through the lower-tracks in high school, or who dropped out of high school, enter the community college with less specific expectations and vaguer plans, that they are more likely, therefore, to be advised into the general-function courses with high literacy demands and more likely to experience academic difficulty and end up on probation. The fact that students from these backgrounds are often less prepared than students from higher tracks in such areas as math reinforces the likelihood that they will experience difficulties.

Student Aspirations and the Functions of Scholastic Probation

It may be instructive to compare the process sketched above to Burton Clark's classic description of the "cooling out" of students in the community college (see Clark, 1961). According to Clark, the "cooling out" process consists of confronting the students with a series of barriers built into the structure of the college to gradually filter out those who are not the "right material" for college. The students' aspirations and expectations are lowered in such a way that they come to accept their failure as legitimate. The mechanisms of the "cooling out" process are summarized by Jerome Karable (1972) into the following categories: testing(by which the students are labeled and classified); counseling (by which students with poor academic backgrounds or poor test scores are routed into vocational and other programs which they are supposedly more fit to handle than traditional academic programs); mandatory courses designed to fail a certain proportion of students; and academic probation--conceived as a sort of socializing process for failure.

Our findings lend little support to the "cooling out" thesis. (1) Testing affects only a minority of students, recommendations made on the basis of assessment tests are not binding to the students, and there is no clear evidence that the taking of developmental courses--the only possible practical outcome of the assessment tests--hinders the students (though there is no clear evidence it does them any great good either). (2) We have no evidence of students being counseled into vocational programs against their inclinations; the distribution of majors among probation students was roughly the same as that for the entire school population. In fact, as we have seen, there may be a tendency for counselors to counsel uncertain or undecided students into "general-function" courses rather than specific vocational programs, which leads us to the third finding.(3) There is some evidence for the existence of "mandatory" or required courses, and it seems that these courses are responsible for a disproportionate number of student failures. However, we have trouble with the idea that these courses are "designed" to fail a certain proportion of students. Rather, it seems that these courses present the students with objectively greater literacy demands--both in terms of time required and the specificity and explicitness of what the student is required to perform. The one institutional feature that does seem to unnecessarily increase the difficulty of the courses for students is that the faculty who design their curricula do not make any systematic effort to relate the content of these courses (or the "skills" they are supposed to impart) to any of the other academic situations in which the students might find themselves in the college. There is also some evidence to suggest these curriculum designers are implicitly using the four-year college or university as a model in constructing their programs. (4) Academic probation is certainly a poor means of socializing the students to accept failure, if, as seems to be the case, some students are unaware of their probation status, and most others do not understand what "probation" means. Finally, we have surprisingly little evidence that students accept their failure as "legitimate" in any way. True, many of them are not surprised by their academic problems, but almost without exception they feel that in some way the college has let them down--by a lack of adequate assessment and placement, by inadequate instruction and so on. We should note here that these complaints are almost always local. The students generally look very favorably on the college and community colleges in general. They see their problems in a very particularistic fashion: such and such a teacher, such and such courses are recounted as the sources of problems. As we noted above, some of the students' behavior in dropping and retaking courses can be accounted for as part of a strategy of searching for an instructor with a congenial approach.

The "cooling out" thesis has also been questioned by Howard London (1978) in an important ethnographic study of a community college. London notes that Clark's work was based mainly on official information (memoranda and other school documents) rather than on observations of classes or interviews with students. His central criticism of Clark is that the students do not, as Clark suggests, arrive at the community college with untempered expectations and aspirations. Rather, the students he studied were "clearly conscious of and wounded by past failures and low self regard" (1978:152). In other words, the students had been "cooled out"--had their expectations and aspirations dampened--before they entered the community college. The students in his study approached the college tentatively and experimentally. London explains the "deviant" behavior he witnessed as a manifestation of the students hedging their bets, refusing to commit themselves wholeheartedly to the college in an attempt to buffer the effects of possible failure:

> ...stress and anomie and deviant behavior were evident in the students' resistance to their schoolwork, in their absenteeism, in

> their 'assaults' on teachers, and in their self-criticisms (London, 1978:153).

David Riesman, drawing on London's account, argues that the students

> ...preferred to humiliate the teacher by disorderly conduct and refusal to attend class regularly, let alone to do the required readings, to the risk of making a real effort that might turn out to be worthless and thus prove the inadequacy that was an underlying source of anxiety for them... (Riesman, 1980: 191).

Our research does not give much support to this description of the community college. We found, as witnessed by the fact that over half of the probation students interviewed said they were thinking of continuing their education at a four-year college, that students' aspirations had not been significantly dampened, even by a notable lack of success in the college. The students' expectations ranged from uncertainty to a feeling of frustration that the college was not doing more for them. In none of the classroom observations done in the course of this research (well over 200) did we witness the type of concerted classroom disobedience that London and Reisman describe. The worst we could say is that in many cases the students appeared extremely bored (often with good reason, we would suggest). The types of peer pressure and peer group ethos that London described was also very less evident in our research.

The differences between the London study and our own are perhaps best explained by noting the very different college contexts: London's community college served a relatively homogeneous population from a fairly well delimited neighborhood. The colleges in our study served large metropolitan areas with extremely heterogeneous student populations. Off-campus interactions between students were relatively rare, and there was much less student-student interaction outside the class in our study than was apparently the case in London's study. This merely goes to emphasize a point that could apply equally well to almost all of the sections of this report: community colleges are relatively new and still highly unstandardized institutions. Any discussion of individual colleges must be taken in the context of the particular situation of the college in question.

REFERENCES

Beal, Philip E. and Noel, Lee, WHAT WORKS IN STUDENT RETENTION. The American College Testing Program and National Center for Higher Education Management Systems, 1979.

Clark, B.D. "The 'Cooling Out' Function in Higher Education," AMERICAN JOURNAL OF SOCIOLOGY. 65, 1960. 569-576.

Cope, Robert and Hannah, William, REVOLVING COLLEGE DOORS: THE CAUSES OF DROPPING OUT, STOPPING OUT, AND TRANSFERRING. New York: John Wiley and Sons, 1975.

de los Santos, Alfredo, G. Jr., Montemayor, Joaquin, Solis, Erique. CHICANO STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION: ACCESS, ATTRITION, AND ACHIEVEMENT. Research Report Series of the Office for Advanced Research in Hispanic Education, The University of Texas at Austin. 1 (1). December 1980.

Friedlander, Jack, "The Problem of Withdrawal from College Credit Courses," COMMUNITY COLLEGE REVIEW, 19, 57-66.

Karabel, Jerome, "Community College and Social Stratification," HARVARD EDUCATIONAL REVIEW, 42, 1972, 521-562.

London, Howard, THE CULTURE OF A COMMUNITY COLLEGE. New York: Praeger, 1978.

Middleton, Lorenzo, "Emphasis on Standards at Miami-Dade Leads to 8,000 Dismissals and Suspensions in 3 Years," THE CHRONICLE OF HIGHER EDUCATION, February 2, 1981, pp 3-4.

Riesman, David, ON HIGHER EDUCATION: THE ACADEMIC ENTERPRISE IN AN ERA OR RISING STUDENT CONSUMERISM. San Francisco: Jossey-Bass, 1980.

Terenzini, Patrick T. "An Evaluation of Three Basic Designs for Studying Attrition," Paper presented at the Annual Forum of the Association for Institutional Research, Houston, Texas, May 1978.

CHAPTER IV

DEVELOPMENTAL PROGRAMS, DEVELOPMENTAL READING, AND SOME ARGUMENTS ABOUT THE TEACHING OF READING

Introduction

This chapter of the report is divided into three sections. The first section is a discussion of the organizational contexts of developmental programs (and especially developmental reading courses) in the community college. The discussion is schematic and incomplete, but it should serve to give the reader some notion of the diversity of institutional contexts for developmental education and of some of the major issues in this area of inquiry.

The second section of the chapter is an extended description and discussion of the developmental reading program at one of the site colleges included in this research.

The final section consists of some fragmentary speculations on the social aspects of written language. The reader should not treat this section as an attempt to present a finished product, much less a theory. Rather, it is intended as an attempt to make a very modest contribution to ongoing debates and research.

THE ORGANIZATIONAL CONTEXTS OF DEVELOPMENTAL PROGRAMS

In this section, we briefly draw a scenario for contextualizing the case study by noting the heterogeneity of institutional and pedagogical arrangements found in developmental, and especially developmental reading, programs throughout the country.

How widespread are they?

A recent nationwide survey suggests that over 90% of all community colleges, and almost 80% of all four-year colleges offer remedial courses (Roueche and Snow, 1977:19). Recent surveys in California (Foster, 1979) and Michigan (Hiatt and Kilty, 1980) showed 93% and 95%, respectively, of the responding community colleges with established developmental reading courses. Some states, in fact, legally mandate the community colleges to develop "remedial" or "compensatory" education programs (Texas does so, for example); while many accrediting agencies require their members to develop developmental programs before they will accredit them (as was the case with one of our site colleges). It is plain, then, that remedial or developmental education is institutionally ensconced in American higher education. To leave it at that, however, would be quite misleading, for the form and substance of these programs varies dramatically from institution to institution.

This chapter was written by Jan Nespor.

Variation in the Organizational Context of Developmental Programs

The developmental programs at the college studied were highly centralized; that is, all of the developmental courses offered by the college were administrated by an autonomous Department of Developmental Studies. Other colleges, however, have integrated the developmental courses into the traditional departmental structure. For example, they offer developmental or remedial writing within the English department, developmental math within the mathematics department, and so on. (Foster, 1979, reports that 65% of the reading programs in his survey were in English departments.) In some cases, remedial or developmental services may lack departmental status altogether and function simply as "learning labs" or "tutoring labs" whose instructors may or may not have faculty status. (This was the case for a brief period in the history of one of the programs we studied.) In their study of the City University of New York system, Lavin, Alba, and Silberstein note that there are costs and benefits to both the centralized and decentralized arrangements:

> The centralized approach facilitated the monitoring of student progress and increased the likelihood of interaction among faculty who had been specially recruited for the remedial effort. On the other hand, these centralized departments were more likely to be isolated from the mainstream of the academic programs. The decentralized model increased problems of coordination and tended to segment the students' experiences in remedial courses. But an advantage of this model was that a wider range of regular faculty became involved in the remedial effort, and indeed, the involvement of traditional academic departments often signaled a greater willingness of the faculty to commit itself to open admissions (1981:233).

Although it is a truism to say that individual administrators and instructors can do a great deal to combat organizational tendencies, the comment of Lavin and his colleagues on the isolation of centralized developmental programs corresponds to the observations we have made of the centralized developmental programs at the community college we studied: they are poorly integrated with the other programs and departments of the college. There is only rarely any explicit (or even implicit) attempt to relate the subject matter of the developmental courses concretely to the curricula of the traditional courses (this may lead to redundancy, as in the math program, or almost total irrelevancy, as in some aspects of the reading program). We will return to the question of organizational isolation later in this study when we examine the possible consquences of the reading program for its students.

The Selection of Students into Developmental Programs

Very rarely is access to developmental programs restricted. That is, almost all colleges with developmental programs allow students to enroll in those programs if they so choose. However, in almost all cases, the college takes a hand in sorting and selecting students into remedial/developmental programs. This is most commonly accomplished by giving entering students standardized tests (less often, locally developed assessment instruments) in reading, writing and math. At the college we studied, students were given a standardized test in reading, were asked to submit samples of their writing for evaluation, and were given a locally developed math placement test if they were enrolling in math courses (as we explain below, however, not all students take these tests). However, the use and interpretation of these tests varies widely. Lavin et al. note that at one college in the CUNY system, students testing below the ninth grade level on the reading test were considered in need of remediation, while at another college in the same system, the 11th grade level was the criterion for determining who needed remediation. This sort of inconsistency is probably infrequent, as most colleges use a 12th grade reading level, measured by a norm-referenced test, to divide those who need remediation from those who do not. The 12th grade level is used, of course, because most (but certainly not all) of the students entering community colleges have completed 12 years of the public schools and should officially be reading at the 12th grade level (or, actually, since the grade level equivalents usually refer to what a student should be able to do at the beginning of a year--e.g., a 12.1 grade level means the student's performance is the same as the median of students tested in the first month of the 12th grade--a student who had completed 12 years of schooling should "theoretically" test at 12.9 of 13.0, and these would be the "logical" criterion levels). Further differentiations are often made within the group whose test scores are below the 12th grade level. At CUNY, a distinction was made between those who scored between the 9th and 12th grade levels (who were labeled in need of "some remediation"), and those who scored below the 9th grade level (in need of "intensive remediation") (See Lavin, et al. 1981:234). This reflects a distinction made in some colleges between "remedial" and "developmental" reading instruction--the former for students scoring below some secondary grade level criterion, e.g., 8th or 9th grade reading level, and the latter for students above that level but still below the 12th grade level. This type of distinction is found even where there are not explicit administrative supports for it, and seems to reflect in some part a recognition by instructors and administrators that the high schools do not in fact turn out students reading at the 13th grade levels, and that the community colleges do not in fact demand that students read at this level. As one instructor in our study commented, the students who were "really low, below eighth grade" were in trouble, but the students reading at the 10th grade level "can certainly make it in the college."

The classification and labeling of students, whatever the criteria used, are important only insofar as they have consequences for the students. Broadly, there are two sorts of consequences: those for the student's psyche--his or her self-esteem, attitude, motivation, and so on--and the consequences of the tests for the students' organizational careers (their placement in the curriculum). About the effects of the assessment tests on students' psyches we can say little. It is a commonplace in the community college literature that developmental or remedial students are "possessive of a poor self-concept due to previous failure in educational experiences, and unmotivated by academic competition" (Aron, 1978:232).

Our own observations suggest that such sweeping generalizations mask a very great degree of heterogeneity in the attitudes, expectations, and motivations of developmental students. However, the assessment tests used at the colleges are much the same as students would have encountered in high school, and it seems unlikely that test results alone would surprise students one way or another. What seems crucial, then, are the consequences of the tests for the students' academic careers. There are two ways in which the assessment test scores affect the students' careers in the college: the tests can be used as the basis for making mandatory assignments to remedial/developmental classes, or the test scores can be used in advising and counseling students to voluntarily enroll in developmental courses. Mandatory assignment can take the form of requiring the students to take a specific set or sequence of remedial courses before being allowed to engage the regular curriculum, or the students may merely be required to take remedial courses in addition to courses from the regular curriculum. There are no clear criteria for deciding when a student has been "remediated." It would seem "logical"--given the assumption of mandatory placement--that the same tests used to place the students be used to evaluate their progress. In other words, if scoring below the 12th grade level is reason to force a student to take a remedial class, then that remedial class should have the result of enabling the student to score at or above the 12th grade level on the same test. However, while the assessment test is sometimes used as a "post-test" as well, we know of no cases where such testing is used as the sole, or even the main, evaluative instrument in remedial courses. Instead, the criterion for determining remediation seems to be the student's completion of the course with a passing grade (or simply passing the course--apparently 30% of the reading programs in Foster's California survey did not give letter grades). Even here there is some variation: Lavin and his colleagues report some instances from the CUNY system in which students assigned to remedial courses on the basis of assessment tests were later reassigned to regular courses on the basis of performance. In other situations, students performing poorly in regular courses (e.g., being placed on probation) may be required to take remedial courses regardless of their assessment scores. Such flexibility, however, does not seem to be widespread--once in most remedial programs, students are required to follow the courses to their end.

In "voluntary" remedial programs, students are tested and then advised and counseled on the bases of these tests--but are not required to enroll in remedial courses, no matter how low their test scores. The college studied for this report has such a voluntary system, but as the analysis below makes clear, the ways in which test scores are presented and explained to students are not neutral processes. Students scoring below a criterion level on an assessment test in a voluntary system may still be required to undergo special counseling in which they are warned of the dire consequences awaiting them should they fail to enroll in remedial courses. Yet studies tracing out the consequences of taking or not taking remedial courses are hard to come by. They are often pedagogically or institutionally-specific (describing unusual or innovative programs) and rarely tell us much about the students involved outside of their test scores, drop-out rates, or the variable which is being measured. Moreover, the components or remedial programs, and their linkages to the regular curriculum, are so varied across the nation that few strong generalizations can be made and no consensus can be reached-except to say that the value and effectiveness of remedial education remains highly problematic.

Curriculum of Developmental Reading Classes

Different systems of student selection provide one source of variation among developmental reading programs. The picture becomes even more muddied when one considers the various pedagogical and curricular systems in use. While a catalog of different classroom systems is beyond the scope of this report, we can suggest some of the basic dimensions along which pedagogical and curricular systems vary. This analysis is derived in large part from our observations of one setting. However, we feel that the processes involved in structuring the programs we observed are general to all reading programs, though their importance may vary from instance to instance.

(1) The degree of "centralization" in administration has already been mentioned as a determinant of curriculum. Reading courses that are part of "decentralized" developmental programs are usually housed administratively in English departments and their curriculum is geared to the curriculum of the English departments--indeed in these situations one could speak of the developmental reading and regular English syllabi as different aspects of the same curriculum. Note the CUNY case where "remedial" simply gives students more time to do the same work. In centralized developmental studies departments, reading courses are more likely to be autonomously administrated. In the situation we observed, the curriculum of the reading courses was essentially the responsibility of the full-time reading instructors. These instructors were responsible for selecting an assessment test (though as an historical fact, they were not the ones who had picked it), as well as for determining the content of the reading courses--the books to be used, the instructional approach to be adopted, the types of tests given, and so on. This localization of curricular decision-making had the result of de-coupling the curriculum of the reading classes from that of other programs in the college. While the reading instructors felt that they were in fact imparting "skills" and knowledge to their students which would be useful in other college courses, there were no explicit attempts (and only rare implicit attempts) to link the reading curriculum to, say the English curriculum or that of any other program in the college. Instead, the reading curriculum was derived from the concepts and theories the instructors had gained from their specialized training in the field of reading--all of the full-time reading instructors had Master's degrees in Reading. We can find no comparative evidence from which to hypothesize a trend, but it is worth suggesting the possibility that there is connection between the production at the Master's level of specialists in reading and the establishment of centralized developmental programs in which such a certified reading instructor controls the shaping of the curriculum. At the present time, the decentralized case seems to be more common. Foster (1979) reports that of the California community college reading programs she surveyed only 19% were either completely autonomous or affiliated with what might be considered a "centralized" remedial program (e.g., "Learning Center," "Language Arts") while 65% were affiliated with English. Only 23% of the schools required a credential in reading for reading instructors (cf. Ahrendt, 1975, who reports that many reading instructors in community colleges have no academic training in reading, but come from the disciplines of English,

psychology and so on. This may reflect the administrative situation which Foster reports: the English and Psychology and other traditional departments may draw from their own ranks when establishing a remedial reading program in their department.)

Whether the situation we examined--an autonomous reading program staffed by full-time instructors with Master's credentials in Reading--is a sign of a shift in the organization of reading programs, or whether it is anomolous, or whether the California situation is anomolous, we cannot say. What we can say is that in the situation we observed the administrative autonomy of the reading program and the high degree of expertise of the instructors running it seemed to have worked to produce a program that was curricularly isolated from other programs in the college. The instructors approached the subject matter of the reading courses in terms of the theories of the reading process and the pedagogical techniques they had learned in their own academic training. (Since we did not directly observe training programs for reading instructors, the nature of this approach must be inferred from the statements of the reading instructors themselves and from what we can guess of the content of the courses they took in college by looking at required readings for such courses--at the University of Texas, which may or may not be representative of other programs--and from the major journals in the field.)

(2) The assessment test used in the selection of students into reading courses also seems to be related to the curriculum of those courses. Ostensibly, instructors can pick from a large number of available nationally-distributed standardized tests (or can use their own informal assessment instruments). However, in practice a number of factors work to limit the range of selection, among them are: (a) the ease with which the test can be acquired and administered, and (b) how widely the test is used. A relatively small number of the available tests seem to dominate the market (e.g., Foster, 1979, found that 65% of the California community college reading programs used the Nelson-Denny reading test as part of their assessment system. The same test was in use at 41% of Roueche's and Snow's national sample of community colleges Roueche and Snow, 1978:26-7). Finally, once a test is chosen, administrative inertia makes it somewhat difficult to change to another test (though, of course, it is not impossible)--new local norms have to be obtained, new test booklets and perhaps new grading machines must be acquired, and so on. With this uncertainty as to the precise motives behind the selection of a particular reading test, we can do no more than to point to the broad correspondence between the components of the tests and the aspects or components of the reading courses: that is, the assessment tests have sub-tests on, say, vocabulary and comprehension, which mirror distinct components of the curriculum devoted to vocabulary and comprehension. This is not to say that the sub-test scores are used for placement purposes--they certainly were not in the situation we studied. Instead, we point to the correspondence to suggest that the same assumptions about the nature of the reading process underlie both tests and curriculum structure. Whether instructors choose tests which reflect their own assumptions, whether instructors fit their curriculum to the tests, or whether both tests and teachers are products of educational training institutions who impart the same assumptions to both, we cannot say.

(3) The texts used in reading courses are enormously important determinants of class content, classroom interaction, and evaluation. Unlike the assessment tests, which are rarely changed and very infrequently discussed, classroom texts are given constant attention by instructors, their advantages and disadvantages are consciously weighed, and they (or the way they are used) are very frequently changed. It is necessary to distinguish nationally produced texts, from texts produced by the instructors themselves for use in their own classrooms (handouts, exercises, short stories, etc.), and from texts originally produced for purposes other than use in reading classrooms (e.g., novels, newspaper and magazine articles, textbooks from other classes and so on). Texts produced especially for use in reading classes tend to focus on one or the other of the components that are held to make up the skill of reading--pronunciation (Word Attack, Phonics, etc.), vocabulary, and comprehension. Very often these texts are "programmed" or in some way constructed so that students can use them with a minimum of instructor supervision or interaction (sometimes they are made to be used with machines). In our experience such programmed materials are generally found for the pronunciation or vocabulary components of the reading classes, and the students are required to do most of the work in the books on their own (usually outside of class). Little class time is spent on these components, and the instructors rarely use any material other than the textbooks. Quite frequently, it would appear, pronunciation and vocabulary components are held to be valuable in and of themselves; and no attempt is made to relate them to the students' other school experiences, or to integrate them with the component which often receives the bulk of class time and the instructor's attention: reading comprehension. The uses of text in reading comprehension are much more diverse than in pronunciation or vocabulary. Usually there is a standard textbook designed especially for developmental courses in which the students work--much as they work in the textbooks for vocabulary or pronunciation. However, there is a great deal more classroom use with the comprehension books--often class discussions or question and answer sessions focus on passages or sections of the textbook; and (in courses which use small-group activities) students often discuss or work in the textbooks in small groups. One feature of reading textbooks is that they rarely resemble any type of text found outside of the reading course. They often consist of short, fragmented, thematically unrelated specimens of prose. Often the subject matter is remarkably banal--indeed, sometimes it seems as if lack of substance is a quality sought after by reading instructors: the feeling apparently being that the more one can do to reduce the possible interference of "content," the easier it will be to teach the students the abstract skills of "reading." Instructor-produced texts used in the reading classes are generally modeled on the types of fragments found in textbooks. However, in some reading curricula, efforts are made to give students at least some exposure to some types of text materials found in everyday life: novels, newspaper or magazine articles, or selections from school textbooks used in other courses. The use of these texts is the only point at which the reading courses come close to concentrating, not on the abstract "skill" of reading, but on the written language of everyday life (or at least the possible uses of written language in everyday life--we know that around 45% of adults in the United States do not read books--and 6% read nothing at all; see McEvoy and Vincent,

1980). Even here, however, the reading instructors may feel obliged to avoid giving too much attention to content, and instead concentrate on the "concepts" and "skills" of reading novels or whatever.

Pedagogy

There is a good deal of controversy--we encountered it in the field as well as in the literature--over the proper "instructional system" or pedagogy for teaching developmental reading (or indeed, for teaching "in general"). Much of this discussion focuses on the notion of "individualized instruction," a system of pedagogy widely used in developmental programs.

"Individualized instruction" is a concept deriving from Benjamin Bloom's idea of "mastery learning" (Bloom, 1971; see also Barr and Dreban, 1978:115-126)--beyond this, however, especially in the world of practice, it is exceedingly difficult to say anything about "individualized instruction" with certainty. The uncertainty arises, in the first instance, from the fact that Bloom's mastery learning is modeled on the ideal relationship of individual student to tutor, and little is said about how this ideal model is to be transformed into practice:

> (mastery learning)...fails to identify the classroom's collective properties which give rise both to management and time allocation problems. It also fails to acknowledge that classroom properties are instructional conditions equal in importance to individual student characteristics, and classrooms are part of a larger school environment which imposes constraints of its own. The tutorial model narrows attention to the learning of individual students and is unlikely to consider the instructional activities of teachers as being concerned with alternative allocation of time, materials, and tasks and dependent on the composition of a diverse collectivitiy and the constraints of time and administrative policy within which they operate. Tutors need not cope with diverse interests and capacities or the problems that diversity generates, and it is difficult to understand how classrooms can work with a model designed to fit a radically different case (Barr and Dreeban, 1978:125-6).

This is, of course, not an attack on the premises of mastery learning: that formative testing, the assignment of materials on the basis of these tests, the provision of feedback and tutoring to individual students, the individualization of pacing, and the individualization of total time allowed to complete the assignment--are all conducive to the students' utlimately learning the material, regardless of their "aptitudes." Instead, it is a recognition that there are no clear procedures for implementing these designs in existing school organizations, nor any agreement on criteria for determining whether or not they have been implemented.

In practice, for example, we see distinctions made in reading programs between individualized instruction through "prescriptive techniques" (utilizing reading machines, and rigidly programmed texts, students working more or less in isolation) and "individualized instruction"through personalized techniques (self-directed activities by students, "student goal setting," "verbal interaction between among students and with the instructor"). The former is linked with "behavioral theory," the latter with "cognitive field theory" (see Aron, 1978:233). Aron cites evidence which she says shows that "prescriptive programs are the most common types found in community colleges" (Ibid.). The notion of individualized pacing and the relaxing of total time constraints is absent in these formulations (though they are so vaguely formulated that one cannot say that such individualization is strictly excluded).

We see in practice, then, that any number of pedagogical systems may be touted as "individualized" by their creators--and yet in most practical instances, they bear little resemblance to the "mastery learning" scheme: the formative testing Bloom calls for is implemented (in instances we observed) in the form of placement into programmed readers on the basis of scores from norm-referenced standardized tests, or on the basis of crudely homemade placement tests derived from pre-selected textbooks. The linkages between these assessment instruments and the texts to which the students are assigned is very problematic at best. At any rate, it is important to realize that the degree to which a program can be "individualized" is limited by the number of different "levels" distinguished in the programmed materials. For example, there are seven levels of the vocabulary books used in the reading programs we observed. Thus, the variation in individual abilities must be fit within a range of seven. If there were only three levels to the programmed materials, only three levels of individual ability would be discriminated.

The "feedback and tutoring" which are so much a part of the model are accomplished in many instances by machinery ("reading machines" which essentially work to vary the rate at which text appears before the students)--which does indeed "individualize" instruction but only in the sense that it isolates the students and differentiates them in terms of the level of the programmed text in which they are placed. Foster (1979:80) reports that all of the reading programs in her sample use programmed materials "and/or" mechanical aids--all doubtless would claim that they offered "individualized instruction"--but one cannot say how these materials may be used in the different programs. An alternate pedagogical arrangement, perhaps less common than the one sketched above, uses programmed materials, possibly along with more traditional types of reading material, but eschews machinery and relies instead on small group discussion as a means of instruction providing "feedback and tutoring." The case study below focuses on a class using this form of small-group pedagogy. (For an attempt to compare the relative effectiveness of individualized vs. small group pedagogy, see Kurth, 1979, who suggests that small group instruction produces "significantly" greater gains in comprehension and vocabulary.) Conceivably, such small group pedagogy could also be seen as a form of "individualization"--after all, it seems at least as reasonable to see small groups of peers taking on the "feedback and tutoring" function as it is to imagine this function being performed by machines.

Where pedagogical systems are most likely to diverge from the "individualized" model of mastery learning is in the matter of the time allowed for completion of an assignment. It should be remembered that there are two aspects to the use of time: pacing--the speed at which the students must work through the assignments--and the total time allowed to complete the entire sequence of assignments (the course). Pacing varies much more (it would seem) in the courses using the machine-based pedagogy. In the small-group discussion courses, pacing is much less easy to vary, even when programmed materials are used--as one instructor explained to a reading class, the (vocabulary) books are designed so that you can work through them as fast as you are able, "but you have to remember that you are going to be tested on them (on a specified date), so it's wise not to get too far ahead." (In such a pedagogy, one of the main functions of the "programmed" format may be to allow the instructors to exclude the materials from class--as the report below shows, one of the programs we studied experimented in offering intense classroom instruction on vocabulary, by means of weekly writing tests, in addition to work in programmed texts, but this was given over as being too time-consuming, both for instructors and students.)

Where developmental reading courses diverge most from the ideal of mastery learning is in the total time allotted for the completion of the course. This, of course, is an aspect of the course over which individual instructors have almost no control (although we have seen instructors who, by allowing a large proportion of the class to take incompletes, simulate this aspect of mastery learning. However, this calls for a very great expenditure of time and energy by the instructor and is hardly the sort of practice which could become widespread).

> Individualization of the total time allowed each student is a condition that is necessary for the mastery learning strategy to achieve its goal of bringing all class members to a high level of achievement. But while individualized total time makes a great deal of sense applied to one student at a time in tutorial instruction, it is at odds with the collective constraints of classrooms in which many students possess diverse individual characteristics, and with administrative constraints on the total time available in the school (Barr and Dreeban, 1978:117).

Indeed, the "total time" feature of individualized instruction for mastery learning poses so many practical organizational problems that it is often simply ignored, not mentioned in programmatic articles endorsing mastery learning. In neither of the reading programs we observed was the total time individualized.

The problems entailed in the individualized instruction/mastery learning approach are revealing in a number of ways. They show us how educational theory is pragmatically altered as it is put into practice; how fashionable catchwords such as "individualized instruction" are used to legitimate sometimes strikingly different practices. Above all, they reflect the idea, strong in the hearts of educators, that there is a One-Best-System-of-Instruction lurking about (whether at the level of curriculum or pedagogy), which, if only one could capture it, would solve (or go a long way towards solving) the problems of teaching.

One of the points I shall argue in this report is that pedagogy cannot be specified independently of content--curriculum--and that content cannot be specified independently of function or purpose. In other words, I will suggest that one cannot talk about how to teach without first talking about what is being taught, and that one cannot talk about what is being taught without talking about why it is being taught. The ground on which this argument will be built is a case study of a set of reading courses at one of the campuses we studied.

THE TEACHING OF DEVELOPMENTAL READING

Sources of Data

This section reports on a study of the developmental reading program at one of the site colleges. Approximately 60 class sessions were observed over a period of three semesters (two long semesters and one summer session in the classrooms of three reading instructors teaching in any one semester). Each instructor was interviewed on tape, some more than once. Twelve students (of approximately 44 enrolled in the classes) were interviewed on tape, but there were frequent informal conversations with students before and after class, and crucial information was gained by sitting in on the small (two or three people) discussion groups which were the standard units of classroom activity. Examples of students' papers and tests were acquired with the cooperation of instructors and students, while instructors very graciously allowed me to look at some of the comments made by students in their evaluations of the instructors. The standardized testing, and the advising done on the basis of it, were observed on two occasions, and again the instructors were most cooperative in allowing me to sit in on planning and briefing sessions. One staff meeting of all the reading instructors was observed, and much vital information was derived from this meeting. However, we were never able to obtain permission to attend the "task force" meetings of the developmental instructors from the different campuses (though we did obtain the official minutes from several of these meetings).

Focus of the Study

The data acquired from the sources noted above are used to develop, at one level, a descriptive account of what goes on in the reading classrooms at this campus, focusing on how students are selected into the reading classes and what happens to them once they are there: that is, what sort of communicative and performative problems do the instructors pose for the students and how do the students deal with them? At the same time, we recognize that the stystem of instruction used to teach reading at this college is only one among many and that the implementation of the same instructional system may vary from college to college. Moreover, the composition of the student body in the reading classes observed cannot be assumed to be similar to that of other developmental reading programs in other college systems.

THE READING COURSES

The study of the reading course is divided into six sections. The first three sections deal with extra-classroom matters: how students are selected into developmental classes, what kinds of students are selected, and how the reading classes are administratively organized. The next three sections deal in turn with the three major curricular components of classroom instruction.

I. Assessment

The full-time developmental reading instructors administer a commonly-used standardized test to the new students who attend the college's "orientation" (held about a month before registration). The testing is described below. What can be immediately noted is that probably fewer than a third of the new students in any given semester attend this orientation. Orientation is not a required function for students, nor does it provide them with any crucial services--indeed, outside of the assessment and the filling out of some of the preliminary registration materials, little happens. To test all incoming students would require an expenditure of funds beyond the college's capability--a point bemoaned by the reading instructors and some of the administrators. We were unable to survey the students at Orientation, and we cannot say how representative they are of the general student body.

Of the prospective students who do attend the orientation, only those with fewer than 24 college-credit hours are required to take the standardized reading test. The only other students who are tested are those who enroll in the developmental classes without having been tested and advised at Orientation (a minority at the time of our observations).

The Testing Process

Standardized multiple-choice tests of the kind used to "measure" the reading "abilities" of the students at this college are generally thought to be insular, completely self-contained entities: all of the questions and answers are objectively specified, the examiners are provided with a script to standardize the interaction. and students are made to clear away all their belongings--test, answer sheets and pencils are provided--a totally alien context is created in an effort nullify the influence of context. In spite of the efforts of the test makers to control context, however, a great deal of variation occurs in the actual administration of tests, and the strictures of the examiner's booklet are only selectively attended to. For example, on one of the campuses we observed, the testing session itself was conducted exactly as specified in the examiner's manual--the scripts being read aloud; tests, answer sheets and pencils handed out and collected at the proper intervals. On another campus of the same college, however, tests and answer sheets were lying on tables as the students entered the testing area; the scripts were ignored and instead an instructor told the students that the first part of the test had 100 questions, but that they shouldn't worry about it because most students only answer about 30 anyway. The students were counseled to skip items if they didn't know the answers. Before the second part of the test was begun (the "comprehension" sub-test), the instructor warned the students that the first of the passages to be read was longer than the others, "You can approach the test any way you want. Don't get uptight about it; only the first passage is long." The students at this campus are told to "relax," that the test is not a "big deal," that its only purpose is to help the students. It seems clear that the advice given the students on the second campus is humane, and probably helpful--but such actions "seriously compromise" the "accuracy and value" of the test data, according to the authors of the test. Whether or not such a test should be compromised is perhaps worth considering--here, however, I have only intended to suggest that--beyond the criticisms of social bias and epistemological arbitrariness--one must also bear in mind that standardized tests are not standardized in practice.

The Interpretation of the Test Scores

The reasoning that goes into the selection and use of a test is often heavily influenced by organizational constraints. For example, when we talked to an ex-member of the reading staff who had been on hand for the founding of the developmental program, and who had been responsible for setting up the first reading curriculum, s/he explained to us that the structure and validity of a standardized test are not necessarily the primary criteria for evaluating them:

> Very frankly, I didn't like that instrument at all. Unfortunately, most of the other tests that I encountered I didn't think were that accurate either...But why I ultimately ended up going with that, and that was really a last-minute, last-ditch thing, was I called the representative from (the publisher) and said, 'Can you get this stuff to us right away?'--We were getting started in one or two weeks, and I just realized that I needed to have something, and it became a lesser evil. I felt in selecting the test that it was something that was being used in a lot of places so that (laughs) regardless of whether the scores were accurate or not, they nonetheless would be comparable with other places...Some of the other tests...seemed to be a little better, but it was also kind of cumbersome to administer. That was another thing about the (selected test): it was easy to get and administer. We bought the scoring sheets and scored them while they (the students) were waiting around.

If the instructors presently teaching reading are not quite this cynical about the standardized tests, neither are they very sanguine about them. The test is "not very sensitive," one instructor told us, "it tells more about the group as a whole then about the individual." As "screening devices" another said, "they're pretty good;" they enable you to distinguish between "those people who are really good at reading and those people who have great difficulty," but "in all of that in between, I don't think (the test) touches it." It seems then that the instructors are well aware of many of the difficulties inherent in standardized testing--but at the same time they are still constrained to use some method to sort and categorize students (the social causes of all of these constraints would entail a rather extensive digression--suffice it to say that an immediate and sufficient constraint is that such tests are necessary for sorting students into the state-mandated "compensatory" program, which is required by the accrediting agency as well. This, at any rate, was the explanation given us by a department head when asked why there was a developmental reading program at the college.) A compromise is struck: one chooses a test that is widely used and easily administered: as long as a large number of schools are measuring the same things about their students (using the same test), regardless of what is being measured, then the test is considered acceptable.

One would imagine that the skepticism shown about the validity of the test would have some influence on the way test scores are interpreted. But, however much one may doubt the "objectivity" or "sensitivity" of such tests, it is necessary to appear to be using them objectively. Thus, after taking the tests, the students (who by the way have no forewarning whatsoever that they will be taking a test at orientation--another departure from "good" testing practices as outlined in the examiner's manual), are made to wait around in the testing room until their answer sheets are machine-scored and a monitor has converted these scores to grade level equivalents (sometimes using local norms, but often relying on the norms in the tester's booklet). The students are then sorted on the basis of whether they scored above or below the 12.0 level on the test. Those who score above the 12.0 level (around 60% of those tested) can go about their business getting advised for the courses they want to take; those who score below the 12.0 level are routed to a room where they must meet with faculty members from the developmental studies program, who "advise" them on their "need" to take developmental studies courses. While enrollment in developmental courses is "voluntary," then, there are mechanisms to insure that, at least for those students attending orientation, testing, and counseling on the basis of those tests, are mandatory.

Advising on the Basis of the Test

I was able to sit in on some of the briefing sessions for the faculty who would be advising students on enrolling in developmental studies classes. This gives us some idea of what the advisors would ideally like to be doing in the advising process.

The first thing one should do, the advisors were told by the department head, is explain to the students what their test scores mean (e.g., that a 9.7 scores means that the student has scored somewhere on the 9th grade level in reading). The advisor should then recommend to the student that he or she take a developmental studies reading class:

> We can only strongly recommend courses, but if the student scores below the 9th grade level on reading the recommendation should be as strong as possible, because there has to be something really wrong either with the student or with the testing situation...OK, we're going to encounter students who are really shook up after the reading tests...You should ask them how they did in high school. Ask them if they feel that they really have problems in reading or writing.

This attitude seems generally consistent with the instructors' view on the accuracy of the test. However, in the actual practice of giving advice, much of this skeptical and lenient outlook can dissolve.

The students who have scored below the 12.0 level on the test are routed into a single room in which two to four developmental studies faculty (occasionally other faculty) work at two tables advising students. The students are tired, disoriented, and perhaps a little edgy by this time (orientation now being well into its second or third hour--my perception of the students was shared by the advisors and came up in some student interviews as well). The room quickly becomes crowded, and there are sometimes long waits to see a counselor. Most of the students speak to the advisors individually, although occasionally a couple, or a group (almost always of non-English-first-language speakers) would go to be advised together (so they could get into the same class).

There seem to be some fairly routine patterns of advising. First, the advisors take the cards carrying the assessment data and point out the numbers and explain what they mean--that is, the students are told that they are reading below an acceptable level and that they should consider enrolling in a developmental course. At this point there were two common student reactions.

Some students would agree and accept the assessment, often reinforcing it by mentioning past problems with reading or writing. The developmental advisor would then bring out a course schedule, explain what was offered at the various colleges at the various times. The student would pick a time and place, the advising sheet would be filled out and stamped by the advisor, and the student would leave to look for the advisors for academic or transfer courses. While it was impossible to survey these students, several were interviewed. From these interviews and from observations, it would seem that most students who accept the developmental recommendations without protest are either students who have had considerable academic problems in the past or are native speakers of languages other than English. Some exemplary statements from interviews follow. The first is from a young Anglo woman who had recently received her GED:

> I took the test a couple of years back and I didn't do so good on it, and I knew that I was gonna have to take developmental courses because I can't keep up in a regular class...I was counseled and we got to talking about my school work and everything, and my writing and reading was poor, and she told me to go on to the reading course, 'cause they'll help you. All the teachers can spend more time with you, I guess.

Another common reason for acceptance of developmental recommendations is academic insecurity (though there are not necessarily past experiences with reading problems). One Mexican-American woman, returning to school after having raised a family, explained that, excepting her recent GED, she had been

> ...out of school for 28 years, and I was tested when I came back and I did very well in my vocabulary, but my comprehension was very low, and they just advised me--they asked, 'We think this would be good for you, would you like to take it?'--and, of course, I felt that I had had a hard time when I was taking the test, so I said, 'Well, of course, I'm sure that's what I need'...Feeling insecure, I figured that was the best route that I could take.

In contrast, when the student refuses to admit the validity of the assessment (as happens fairly often), the interaction becomes more complex. The advisors' tactics varied with individual students, but there seemed to be a common strategy. At first, the advisor would adopt a conciliatory tone with the recalcitrant student--asking if there might be some extraordinary reason for the test scores. As the advisor explained, the students all seem dazed when they come out of the testing; they think they've been told that they can't read, and they become very defensive: they make "excuses." The recognition by the advisors that many students are upset by their scores and the ease with which advisors could quote strings of anecdotal excuses given by students (hangovers, forgotten glasses) suggests that this may be a fairly large group of students. However, from our limited observations, it seemed that student protests were apparently not always taken seriously by the advisors. Instead, the advisors treat them as rationalizations after the fact and intensify their efforts to convince the students to enroll in the developmental courses. The more the students protest about their test scores, the more the advisors insist on the importance of the scores. They would try to reassure the students that taking developmental studies couses was not stigmatizing, that the courses would help them with their other school work. If such advising strategies failed, the instructors would try to convince students to enroll by talking about the possible unpleasant consequences of not taking the developmental courses.

The Implications of the Testing Process for Selection into Developmental Reading Classes

The most crucial implications of the testing process for the selection of students in the reading courses lie not in the test itself (although we are far from willing to concede that the result itself is valid or accurate) but in the manner in which the test is interpreted and used as a basis for advising. As we have seen, the instructors express misgivings about the usefulness of the test in making fine discriminations among students, but at the same time they are constrained by the need for some sort of selection mechanism. The advisors are aware of the ambiguity of the test scores, but at the same time they give little attention to whether the students' scores are very high or very low (11.5 as opposed to 6.0), and they tend to disregard any qualifying explanations the students may make. In fact, the more the students protest their scores, the more the importance of those scores are stressed by the advisors (who we must note, feel pressured themselves). This is by no means to say that the advisors are always persuasive: only about 50-60% of the students advised to take the developmental reading courses actually enroll in those courses; and the reading instructors were, in general, opposed to the idea of making enrollment in developmental classes mandatory on the basis of examination scores (a system which is taking hold in many community colleges across the country). At the same time, while enrollment in the courses is not mandatory for low-scoring students, the testing is mandatory for those who attend Orientation, and poor performance on these tests may induce a self-doubt in the students, a feeling of uncertainty about their own reading abilities. One Anglo student going through college on his veteran's benefits, gave the following explanation for his enrollment in developmental courses:

> When I came to orientation we did a lot of testing and as a result of the test, they suggested to me that I should probably take reading skills II and writing skills II. So that's the main reason that I took it--it was suggested to me by the results of the test at orientation.

> Interviewer: Were you surprised at that?
>
> Student: Yes, I was, because I had to go take some tests at the Veteran's Administration and according to their tests, I did rather well in my reading skills. But the developmental advisor asked me if I was kind of nervous about taking the test, and I said yes, I was a little bit, because it was kind of slow and drawn out. But before I was in there by myself and I wasn't as nervous I guess.

Another Anglo student, his first semester out of high school, explained that he

> ...took the whatever-it-was-test and I scored 11.5 on it. And that's how I got in those courses...both classes, the reading and the writing... I was just going to take some little classes--I don't know. I decided to go ahead and take those...They're kind of boring because a lot of the stuff I already know...the writing class: I'd been doing that for the last 12 weeks in high school, so I know how to do it.

What strikes one about such comments, beside the fact that they suggest that the long and unexpected orientation process itself (students are not told beforehand that they will be tested) influences the students' performance on the test, is the extreme malleability of the students' opinions of their own reading abilities. Socialized into accepting the results of tests as fact--but not understanding what the tests are and how they are used, relying entirely upon the school officials for interpretations--the students accept recommendations even when these seem inconsistent with what they know about themselves. (The students who we observed resisting the recommendations of the advisors were Anglos; however, we have no other data to support any generalizations about which students are most likely to reject or accept the interpretations of the test scores.). As the advisors/ instructors are themselves not willing to express any great faith in the accuracy of the test (though they feel it is predictive), the selection of students into the reading classes becomes an almost haphazard affair: those students who show up at Orientation and get tested, and who are already doubtful of their reading abilities, are likely to enroll in the reading classes; those who were not previously of a mind that they had "reading problems," but whose test scores are low, may or may not enroll, depending upon how willing they are to assert themselves and dispute the interpretation of the tests (and, of course, there are those--a minority from our observations--who enroll in the reading courses on their own account without having been tested or advised).

The most common alternative to this type of selection system is to make testing universal (all entering students take the same test under the same conditions) and selection into the reading classes mandatory on the basis of some explicit and unwavering criterion (a cut-off level on test scores). Such a practice, however, assumes (1) that the tests are valid and accurate instruments for assessing a student's ability to perform well in the college or more to the point, the student's chances of doing poorly in the college; (2) that objective selection criteria can be found; and (3) that the reading classes actually improve the student's chances of succeeding in the college. All of these assumptions are extremely problematic. The most crucial assumption--that the reading classes are beneficial to their students--has eluded strong and systematic testing. While there are numerous evaluative studies of developmental programs (see Roueche and Snow, 1977; Cross, 1976), the program structures and study designs vary greatly and results have been inconsistent if not contradictory. In a recent, methodologically cautious study of a large system (CUNY), Lavin, Alba and Silberstein (1981:247-260) compared the academic performance (GPA, credit accumulation, attrition or persistence, and eventual graduation) of students taking remedial courses with that of students not taking remedial courses, while controlling for high school background and "need for remediation" (determined on the basis of standardized test scores). They found that community college students taking remedial courses in the CUNY system "were about 5% more likely to return to college for a second year," while the remedial students' GPA was about a tenth of a letter below that of "comparable non-remedial students," and that remedial students "were more likely" to graduate or transfer to a four-year college. (pp. 255-6). If one excludes those students who failed their remedial classes (about 25% of the students who took the courses), the picture improves a little: each remedial course passed increased the likelihood that the student would return to college for a second year by 7%-8%, and increased the probability that they would eventually graduate or transfer by 2%-8% (relative to non-remedial students with similar characteristics). However, the cumulative GPA's of the successful remedial students were no higher than those of the comparable non-remedial students (Lavin, Alba, and Silberstein, 1981:256). The benefits of taking remedial courses (assuming they were passed) were, as Lavin and his colleagues remark, "quite small."

Given the uncertainties and difficulties in assessment, selection, and providing beneficial remedial services, it may be that loose and inconsistent selection processes, of the type we observed, while still in need of improvement, are preferable to the mandatory selection processes.

II. Characteristics of the Students in the Reading Classes The Sample

Our survey of students was taken in the four reading classes I observed on one of the college campuses. Three of these were long semester classes (one a night class) and one was a summer session class. As the student body composition of the different campuses varies, our sample is probably not representative of the college-wide developmental reading enrollment. In particular, Blacks are underrepresented on the campus where these reading classes were situated, and we suspect, in the reading classes themselves (we observed no Black students attending the new student Orientation). The composition of the classes may vary along other lines as well: instructors and administrators reported to us that the students attending summer sessions were younger, more likely to be Anglos and recent high school graduates. We were also told--though here there was some difference of opinion--that students attending night classes were likely to be older than students in day classes, that they were more likely to be holding down heavy job or family responsibilities, and that they were harder working and more sure of their goals than the younger day students. From our observations, we can neither confirm nor dispute these reports--for example, the differences in student body composition of the two long-session day classes were as great as that between one of the day classes and the (long-session) night class. It may also be the case that the composition of the reading classes is changing over time--some instructors commented on a general trend toward younger Anglo students with relatively fewer work or family commitments. Again, we can add little to such reports (except to note that the college enrollment, overall, is becoming younger). The possible dimensions of heterogeneity noted above (campus location, day vs. night classes, long- vs. summer-session) should serve to caution readers that the homogeneity suggested by the fact that developmental students are by definition "high-risk" (low-scoring on "ability" of "self-concept" tests, having poor or mediocre high school records) may lead one to overlook significant differentiating factors such as ethnicity, age, work/family responsibilities and so on. A single college system (varying by campus), or a single campus (varying by day vs. night classes) may contain populations of "high risk" students with significantly different characteristics. One further area of variation, very important in the present instance, is the first language background of the developmental reading students. The table below gives a breakdown of the 49 students in the reading classes observed, by sex and ethnicity, and by English-Second-Language status:

CHARACTERISTICS OF STUDENTS IN READING CLASSES OBSERVED

	Anglo	"Mexican-American"	Black	Oriental	Other
Male (55%)	18	3	3	1	2
Female (45%)	7	11	0	4	0
	(51%)	(28.6%)	(6.1%)	(10.2%)	(4%)
ESL	0	7		5	2
% ESL of ethnic groups		(50%)		(100%)	(100%)

% of entire population ESL = 28.6%

(The determination of whether a student was English Second Language was made on the basis of the instructor's perceptions, the students' comments (they were almost always very explicit about the fact that they were in the classes to learn English), and my own observations of their classroom practice. No figures are given for Black students, but there was at least one student, I believe, who spoke a Black English Vernacular (he would not allow himself to be tape-recorded). Significantly, this student was treated as it he were an ESL student by the instructor and was put in a work group with native speakers of languages other than English--Orientals and a South American Spanish-speaker--and was assigned the same work as these students (the Word Attack book).) In essence, then, the reading instructors were faced with the tasks of teaching native-English speakers "reading skills," and in the same classrooms, teaching non-native speakers English through reading skills. A special curriculum was used to deal with these students (the Word-Attack Curriculum), and I will postpone further discussion of the matter until I take up that curriculum.

The reading instructors themselves usually describe their students as coming from "disadvantaged" backgrounds--both family and school backgrounds:

> The ones that are very low (in reading) are from very poor backgrounds. They are poor as children, minority children, you know--Mexican-American primarily is what I've seen. They did not speak English when they entered school, and they did not get good training in school, or maybe they dropped out--there are several that dropped out, and went into the service, got a GED and came back. But I've had many that didn't get reading in school; they were just passed along.

Other instructors also stressed the various routes students took to the reading classes:

> You have students who are at different levels...If someone drops out of school in the tenth grade, in most instances that person has not been dealing with the printed page, because the kind of jobs available to most people who drop out in the tenth grade are not jobs that employ the printed word...You may have a student, as many of my students tell me they were, totally unserious, for one reason or another, when they were in school. They may have had problems at home, it may have had to do with the fact that their parents were not at all interested in their getting an education...And it sometimes has to do with an environment that is not conducive to reading. And I don't mean that necessarily in a derogatory sense. But...people around the child do not read...there's very little emphasis put on it, very little need shown for it; so the process is not learned properly.
>
> Sometimes it has to do with inadequate teaching in the public schools. There are many factors...

From my observations, it seems that the instructors usually have an accurate notion of each student's background. In the first semester of observation, a detailed survey was distributed by the instructors asking specifically about students' educational history and reading habits; in later semesters, this was dropped; and the instructors relied on conferences with the students to gather their information.

III. The Structure of the Reading Courses

We have seen that the selection system employed by the college is "loose" and perhaps inconsistent (and that it is recognized as such by the reading instructors). One response to this looseness consists essentially of using a secondary system of selection. Thus, the standardized reading test is used for sorting students into the developmental reading courses, but within each classroom there are three courses--administratively defined as beginning, intermediate and advanced reading--with distinct curricula. The first week of the semester (in the long sessions) is taken up with diagnostic testing for placement into one of these three levels. The following extracts from the "course document" given to students on the first day of the class describe this structure:

> Contained within this section are actually three separate courses. Those courses include three levels of reading courses. All three courses are designed to develop or extend many of the same skills, However, the reading level and reading skills necessary to successfully function in...these courses is quite different. Therefore, it is very important that students be placed in a particular course...level which is most appropriate for their reading level and reading skill ability. Even though each student enrolled in a particular course at registration, it is sometimes necessary to adjust the course choice, simply because the detailed diagnostic testing done in this course cannot be provided ahead of registration... To insure placement of students in appropriate courses, the first few course meetings of this class will involve diagnostic placement tests.

The matters referred to here correspond to what is known as "individualizing" the course--that is, adjusting the demands of the course to the students' abilities (as revealed by the diagnostic test). The demands of the course are conceived of in terms of the texts [illegible]ials that comprise the syllabus. There are three components o[illegible]llabus: pronunciation, vocabulary, and comprehension. The [illegible] levels of each of these components are determined by the distinctions made in the textbooks used for teaching them. The vocabulary component is defined by a set of programmed texts with seven levels; the comprehension component is defined by a set of texts with three levels. The pronunciation component, however, is regarded as corresponding to a unitary ability which one either has or lacks--there is only one pronunciation book (no levels) and placement in this book corresponds with placement in the lowest level of the comprehension component.

The two upper levels of the "comprehension" component include, in addition to the textbooks, three novels which must be read by the students. The students in the pronunciation/lowest comprehension level read no novels. The three comprehension textbooks are the *66-*, *88-* and *100-Passages to Development Reading* (by M. Gilmore, A. Sack, and J. Yourman. New York: College Skills Center); the vocabulary textbooks are from the *Word Clues* series, books G-M (Educational Development Laboratories, McGraw-Hill) and *Programmed College Vocabulary 3600* (Feinstein, 1979); the pronunciation textbook is the *Word Attack Manual* (by Josephine Rudd, 1979). The three novels used are *To Kill a Mocking-bird*, *Animal Farm*, and *The Ugly American*. Placement into the "Passages" and "Word Clues" books is done on the basis of tests extracted from those books. In the case of the "Passages" (which contain short prose passages and a set of questions about these passages--these and the other books are described in more detail later), prose passage and text are taken directly from the *88-Passages* book. If the student can't answer the question, he or she is placed in the "beginning" course; students who can answer most or all of the questions are placed in the "intermediate" or advanced course (actually, I observed no one in the

100-Passages book. In one class, all of the students were using the 88-Passages book, though the grade-level equivalents of their scores on the standardized reading test ranged from 4.4 to 15.8--this was probably the result of an unusually large and heterogeneous class over-extending the instructor. In later semesters, the instructors worked out strategies of switching students--e.g., putting all the beginning students in one class and all the intermediate and advanced students in another--to avoid this problem). Placement into the Word Clues book is made on the basis of a test constructed by the full-time reading instructors using words from each of the books (this is described in detail in the section on the vocabulary component). Placement into the Word Attack Manual follows from one's placement into the 66-Passages comprehension text; the instructors also use a short pronunciation diagnostic test with these students after they have been placed (as a check on the 66-Passages placement). The structure of the reading course is represented schematically below:

READING CLASSROOM

	Beginning Course	Intermediate Course	Advanced Course
Pronunciation	Word Attack Manual		
Comprehension	66-Passages	88-Passages	(100-Passages)
		3 Novels	3 Novels
Vocabulary	WORD CLUES: BOOKS G - M		Programmed College Vocabulary 3600

Several points can be made about this couse structure. Excepting the pronunciation component, which is a late addition to the curriculum designed to deal with a special sub-group of students (see discussion in the next section), the components of the reading courses parallel the components of the standardized reading test used for the first round of selection: the test consists of "comprehension" and "vocabulary" subtests, and the major divisions of the classroom are into "comprehension" and "vocabulary" components. The vocabulary and comprehension components of the classroom themselves are based on nationally distributed textbooks and represent, along with the tests, aspects of a "professional ideology" (see Mills, 1963) of reading instruction (there are, of course, other aspects; pronunciation, reading rate, etc. are stressed as aspects of "reading" in other programs). Here, I simply want to highlight a distinctive feature of reading curricula: their dependence on textbooks for their definition. The different reading courses are defined in terms of the textbooks they use, and placement into these courses is made on the basis of tests derived directly from these texts. The primary interest of the reading instructors observed was in teaching reading "comprehension," and this was how the vast majority of the classtime was spent. Yet the terms on which comprehension is taught are defined almost entirely by the textbooks--the fact that the instructors in the program studied here used "real" texts (novels--as opposed to the manufactured pieces of text that make up most reading textbooks) is the exception that tests the rule, for the use of novels in this program was roundly criticized by instructors in the other reading programs we studied. The structuring effects of the textbook are even more pronounced for the vocabulary component, in which (as detailed in a section below), after an abortive attempt to integrate it into classroom instruction, it was relegated almost entirely to out-of-classroom work with the students simply following the programmed texts. In those reading programs in which reading machines and programmed texts are used, the structuring effects of the technology are even greater. What all of this suggests is that an understanding of how and why reading is taught as it is cannot be gained solely from the type of intense process study reported here: instructors do design curricula and organize syllabi; instructors and students do, through the course of classroom interaction, create classroom reality--but not in the circumstances of their own choice. The national systems of basic research in reading (psycholinguistics, cognitive science, etc.) and their impact on the training of reading instructors (especially if there is anything to our hypothesis that the trend is toward instruction by specialists with graduate training in "reading"), as well as the national systems of the production and distribution of textbooks and standardized tests, are crucial determinants of reading instruction in its everyday practice. In the following three sections, we will examine in turn the pronunciation, vocabulary, and comprehension components of the reading classes in an attempt to describe just what the everyday practice of reading instruction does look like.

IV. The Pronunciation Component of the Reading Classes

The observations of the reading classes stretched over three semesters. In the first semester, there was no pronunciation component and a somewhat more elaborate version of the vocabulary component than in later semesters. At a staff meeting of reading instructors toward the end of the semester, there was general agreement among the teachers that some of their students were unable to keep up with the class because of a lack of "word attack" and "dictionary" skills. The suggestion was made to reduce the size of the "comprehension" component for these students (by eliminating the requirement that they read novels) and concentrating on these more "basic" skills. As the chairperson put it:

> As far as we're concerned, the novels can be completely eliminated for these students. What they need to accomplish is to learn word attack and dictionary skills. In my class, I have at least three students who were in the third level course before and still haven't mastered their basic word attack and dictionary skills... and it's not their fault.
>
> It just hasn't been part of the syllabus...The 66-Passages can take care of the comprehension part....

There was some half-hearted protest from the part-time instructors present, who pointed out that reading a novel is an important experience for the students--some of whom say that they've never read a novel before. However, as one of them later explained in an interview:

> ...they read the novels, and they got something out of it; but they needed the word attack skills. Several of them were originally Spanish-speaking and didn't get the skills in school. They were asking for it, and I tried to present some in a supplementary way, but there got to be less and less time, you know how it was last semester with all the tests.

A brief description of the Word Attack Manual (Rudd, 1979) is in order. The book is basically concerned with teaching students how to pronounce words: what is generally termed "decoding" or "phonological recoding." The sections of the book have such titles as "What's in a Word" (syllables); "Break It Up"; "The Consonant Letters and Consonant Blends"; and so on. A large amount of phonetic transcription is used. There are a large number of exercises in the book requiring such skills as discrimination between graphically similar words on the basis of their usage in a sentence. With only one exception (a young man with "dyslexia," which the instructor defined as "reversal of graphic characters"), all of the students observed using the Word Attack Manual were non-native speakers (mainly they were southeast Asians and Mexican-Americans).

Students whose first language is other than English pose peculiar problems for the reading instructors. In the college, as a whole, and in the reading classes in particular, they constitute a sizable minority. There are two groups: "foreign" students, and Spanish-speaking students--these are the instructors' categories. As one instructor put it, the "learning ability" of foreign students

> ...seems to be different...Now that's something I sort of discovered by trial and error, working with foreign students. The first semester that I had a number of foreign students here I gave the (vocabulary placement) test and according to the test, they were just rock bottom. So I put them in the kinds of materials where they had tested and found out very quickly that the materials were much too easy, and they had no reason for being at that level. I began to adjust and found that the tests are not good indicators (for foreign students)
>
> Interviewer: When you say "foreign," what do you mean?
>
> Instructor: Well, I mean not from the United States, not native speakers of English, and I don't mean in the sense of a Chicano; I mean in the sense of an Iranian or a Vietnamese.

Many, if not all, of the foreign students, including Mexican-Americans, were characterized by themselves or by instructors as fluent readers in their native languages. Their enrollment in the reading classes did not stem from reading problems per se as from their desire to learn English. As one instructor expressed it:

> ...the way the system works, many foreign students sign up for developmental classes, and they're really inappropriately in the class. They need to be in an English as a Second Language Class; but the way the system works, in order to stay in the country, they

> have to take credit courses and English as a Second Language is not a credit course, and it also takes more of their time than this does, and they think they can learn English by taking a reading course--which is impossible. I have no training in teaching English as a Second Language, nor do I have the time in the class...if those students are going to take developmental studies classes they need to be in classes where they can get what they need...Maybe a conversation class. I just have had several that are just lost...I had one a couple of semesters ago that almost failed, and I had to just really threaten, but he was driving a taxi 12 hours a day and taking three courses, and he didn't speak English at all, and certainly didn't read it very well, but he would take the work home and his girl friend would help him.

There was another reason for the presence of ESL students in the reading classes--many students who complete the course offerings for ESL still are not able to read English. According to the department head,

> the way we teach reading is through the patterns of written English, so therefore if you happen to be a foreign student, you find that extremely useful...But we do not have a consciously designed ESL reading course in our developmental program. (Nor is there a reading course in the ESL program).

Whether the reading instructors actually teach reading by "the patterns of English writing" is, of course, debatable. The Word Attack Manual, with which most of these students are first confronted, only slightly addresses the "patterns of English writing." The 66-Passages book and the Word Clues book are certainly not designed for ESL students. The phonological-recoding strategy embodied in the Word Attack Manual is premised on the assumption that those being taught to read already have a native command of the spoken language and that by teaching "sound-letter relationships" one can enable the student to draw upon this spoken language competence to make the written language comprehensible. The debates about the psycholinguistic or pedagogical validity of this approach do not concern us directly here. Rather, the situation is cited as an illustration of the importance of available textbooks and training to classroom instruction. One can, it seems, get a graduate education in "reading" without encountering a discussion of the problems of teaching reading to speakers of other languages; moreover, there do not seem to be textbooks easily available for this purpose. The result is that students who exhibit problems formally similar (e.g., poor performance on standardized tests) to those exhibited by native-English speakers (a category with which the instructors would be familiar from their training, and for whom textbooks, and instructional strategies have been developed) are treated in the same fashion as the native speakers, even though the substantive bases of the reading problems of these two groups may be quite different.

In this sense, then, instruction may be influenced by national systems of training and textbook production and distribution. These systems are geared to the problem of teaching native speakers of English to read English, the tests and measures of reading ability implicitly assume that the test-takers are native speakers--that is, they assume that "reading" is a "skill" built upon the base of a common command of a spoken language, so that what one "measures" with a standardized test is not a particular use of (written) language in a peculiar situation (the sterile, ritualized atmosphere of the properly conducted standardized test), but an autonomous "skill" with an existence independent of use.

V. The Vocabulary Component of the Reading Classes

With the vocabulary component, we come to something not directed toward a specific population, but intended for the entire population of the reading classes. The general importance of "vocabulary" to students' academic careers is stressed by instructors when giving rationales for this component:

> ...the highest correlation that exists, you know, among facets of standardized tests is between vocabulary and IQ...each of us in a developmental sequence needs to be enriching our word store...our developmental students, who come sometimes from very, uh, limited experiential backgrounds in the sense of academics particularly--they need to work at that very consistently...like learning 300 new words in the course of the semester.

An instructor on another campus was even more direct in a written rationale given for a proposed vocabulary course:

> There is a correlation between success in life and size of vocabulary.
> A good vocabulary will help you succeed in college.
> A wide range of words is important because a knowledge of words allows students to express themselves more clearly.
> Improved vocabulary increases scores on entrance exams and intelligence tests.

The image here is of "vocabulary" as a set of decontextualized items on a word list stored in the head (e.g., "size" of vocabulary, "word store"). There is no mention given to reading, writing or comprehension in these rationales.

Textbooks

The reading instructors use a "programmed" text to teach vocabulary: the Word Clues (New York: McGraw-Hill) series. There are seven books in the Word Clues series, sharing the same format. All that changes from book to book is the "difficulty" of the 300 words each contains. No criteria were given (in the books) for the selection of the words or the evaluation of their difficulty.

The layout of the Word Clues books is a little difficult to describe. Perhaps the best way is to quote from an introductory page entitled "How to Use This Book":

> WORD CLUES is a programmed book. It teaches you in a step-by-step fashion and tells you immediately whether you are right or wrong.

> You don't read the pages in this book in the usual way. You have probably noticed that the pages are divided into bands of white and gray. Each of these bands is called a frame, and all of the frames are numbered. You work through the book "by the numbers," turning the page for each new frame, and _working only on the right-hand page_. (You are further encouraged not to work on the left-hand pages by the fact that they are printed upside-down. When you are half-done with book, you turn it over and work back to the front.) After starting with frame 1, you go on to 1a (on the next right-hand page), 1b (on another page, and so on)...(_Word Clues_, no page number).

There are three frames for each word (_a_, _b_, and _c_). Frame _a_ gives the word and a phonemic transcription of it along with a sentence using the word--from this the student is to write a definition of synonym of the word. Frame _b_ contains another sentence using the word, and the student is given a choice of four possible definitions. Frame _c_ contains a definition of the word taken from the _Scott, Foresman Intermediate Dictionary_, and the student is given a number of sentences using the word and must choose the sentence(s) in which it is used correctly. This sequence is repeated 300 times in each book. The exercises in frames _a_ and _b_ are designed to help the student learn to use context to guess the meaning of unknown words. The correct answer for each frame appears on the following page, same side of the book.

Explanations for the Use of Such Texts

In discussing the vocabulary texts and the instructors' views of them, three methods of legitimation surfaced. The first was a simple appeal to authority--the writers of the text had done "extensive research" to determine the proper words that college students should learn. (This research consists of "core vocabularies" and frequency lists and so on). Let us assume for a moment that the books are indeed intended to teach students words that they will need to know in college. How could this be determined? The only reasonable possibility would be to base the word selection on educational texts that students might actually be expected to encounter--and then determine in some way which of these words were most important, or most difficult, and most often misunderstood. The interesting point here is that, at best, the vocabulary component can act only as a supplementary aid to the reading of texts--implying that the books are to be used in close association with texts. However, since these are standardized, nationally-produced and distributed vocabulary texts, it is inherently impossible to integrate them with the constellation of texts used on a local level for specific programs corresponding to a student's career through the college.

The second mode of legitimation, however, suggests another possibility. This mode might be appropriately called "redefining the problem," and is exhibited by the instructor who draws the parallels between vocabulary knowledge and IQ and experiential background--it is not so much a matter of vocabulary building, in other words, as of cognitive ability and experience. However, one could also draw the moral from that instructor's re-definition of the problem, that vocabulary building should really be a means, not of teaching a list of words, but of teaching students how to uncover the meanings of words using contextual clues. This, in fact, seems to be the intention of the writers of the book, who state in their introduction that

> There are several methods that may be used in unlocking the meaning of unfamiliar words. But the quickest and most practical approach is knowing how the context, or the words around the unknown word, can unlock the meaning. This method is called using context clues or "word clues."

From this perspective, then, the aim is not to teach content--300 words--but a skill, using context to infer word meanings. If this is, in fact, the instructor's aim in teaching vocabulary, using these particular books, an emphasis on working with the skill in the classroom should be evident, rather than an emphasis on learning the 300 words. In other words, the instructors' selection and legitimation of texts implies certain things about their actions in the class. As described below, however, there are dramatic inconsistencies between theory and practice.

There was one final mode of legitimation, used by each of the instructors: satisfaction of the students. That is, if the students like the books and feel that they are helpful, then the books are good books.

> Initially, I did not like the Word Clues--I've never been particularly fond of programmed instruction...But in talking to the students, the students like them...I've asked several semesters: 'What did you think of the Word Clues book; did you think it helped you'?--and they liked it. And one thing that it does, it presents the word in context, it presents the synonyms, it has definitions, it has check-up tests and review tests. I think that the disadvantage is, that, like now we're doing 50 words in two weeks--I don't see any way that a person can assimilate 50 new words in two weeks. You have to assume that maybe they already know 60% of the words, and so they really only learn 20 new words, which is possible...

All of these legitimations are premised, implicitly or explicitly, on the assumption that the words the students are to learn are in some way "appropriate"--because they're relevant to the students' academic careers, or because they fit well into the students' cognitive developmental sequence, or because learning them is in some sense satisfying to the students. It follows then, that the placement of the student into one of the seven books in the Word Clues series is extremely important.

Placement in the Vocabulary Component

The tests used to place students in the appropriate Word Clues book are constructed by full-time instructors. They take a selection of words (on a random basis, according to the instructors) from each of the seven books, which are graded in difficulty from Book G (the easiest) to Book M (the most difficult). To be placed in a particular book, the student must get at least 75% of the words from the preceding book right; when the student gets fewer than 75% of the words from a given book correct, he or she is placed in that book. This is a sample of the test (Words from Book G):

1. pamphlet
2. displease
3. postpone
4. marine
5. label

a. annoy
b. delay
c. tag
d. booklet
e. of the sea

There are similar sets of words drawn from each of the other six books.

Theoretically, a student's test score should show a steady increase in the number of errors (since vocabulary books supposedly increase in difficulty). However, as one instructor who has praised the books without reservation in interview noted in a staff meeting, "I very rarely saw a progression in my tests. The score bounced around like a ball." The instructors first attributed this to "poor test-making" on their part, and a revision and expansion of the test produced the same results: students scoring higher on a more "difficult" book than on an "easier" book (e.g., less than 75% correct on Book J, but more than 75% correct on Book L). In some instances, in fact, students who were repeating the reading course (e.g., having taken the intermediate level and returning to take the advanced level) would score below 75% on the set of words drawn from the book they had used in the previous semester (and over which they had recently passed a rather comprehensive test). Part of the problem may, of course, be that it is impossible to arrange any strict hierarchy of the difficulty of words. One may say something about their commonness or frequency of appearance in a given type of text, but this cannot be unproblematically equated with recognizability or familiarity. Then again, part of the problem with the test may indeed have to do with "poor test-making." However, the problems such as those of the student repeating the course and not being able to accurately match the words he had studied in the previous semester, leads us to another very important consideration: the way the vocabulary component actually is taught in the classrooms.

Teaching Vocabulary

The teaching of the vocabulary component changed over the three semesters in which classes were observed. During the first semester observed, the students were required to memorize a set number of words each week and to take a test in which they were presented with a short descriptive paragraph and a list of ten of the words they had been studying. They were then supposed to write a short passage on the theme of the given paragraph, using all of the listed words properly. No attempt was made to relate the words to the actual reading experiences of the students, nor were there any attempts to cultivate the "skill" of using context to determine word meaning. The words were presented to the students only in relation to their use on the tests, and no classtime was spent on the vocabulary component except preparing for, taking, and reviewing the vocabulary tests--and this was indeed a significant amount of time: over a third of the class sessions that semester were spent either in vocabulary testing or in preparing for vocabulary tests. At a staff meeting late that semester the reading instructors decided to revise this vocabulary curriculum rather severely.

One instructor began by saying that, with regard to the Word Clues book, the students had so much outside pressure on them (work and family were mentioned) that it was necessary for instructors to put additional pressure on them to make them do the work: that is, grade them for it. This instructor pointed out that since the students are expected to spend a great deal of time working in the vocabulary books, then that work should help their grades--the tests should not be the only measures of performance. Another instructor agreed that a system was needed by which they could make certain that the students were doing all the units in the Word Clues book--and learning to spell the words also. To do this, it was suggested that the students be required to make up 3" x 5" index cards with each word, its definition, and a sentence in which the word is used. Before the vocabulary tests, these cards and the vocabulary textbooks themselves would be collected, and the students would be given a "check" if they had done the work and a zero if they had not. There is some discussion here as to whether or not the students should get some credit for filling out all their vocabulary cards. Then the topic of the tests themselves surfaced. There was a general feeling among the reading instructors that they are very pressed for time in the classrooms--and much of their dissatisfaction was directed toward the amount of testing done: "diagnostic" tests included and finals excluded, there were 23 tests given in the 15-week semester--over half of them vocabulary tests. As one instructor complained, "I'm really feeling extremely frustrated because there have been so many tests that I haven't had time to teach reading comprehension." Another instructor, in an interview, saw the number of tests in the fall semester was having an even more dramatic impact:

> I started out with 17 students and ended up with like 9...and that was a lot more dropping out than I was used to--they just couldn't handle it. You know I had tests, test this week and test this week and test this week...

It was decided to reduce the number of Word Clues tests from 12 to 6 and to discontinue the essay-type vocabulary tests. One of the instructor's comments that "without the essay tests, we're not going to see their writing problems." "We could see them," another instructor replies, "but we couldn't do anything about them." The department head said that s/he had "had students tell me that the essay tests were really helpful, but it took us away from the focus on reading comprehension."

On first glance, this is merely the familiar story of organizational constraints (time pressures, etc.) impinging upon the conduct of the instruction. But in this case, the changes introduced follow a rather interesting pattern. Consider for a moment the possible reasons for the remarkable amount of testing in the first place--obviously, the idea is to see that the students are learning the words. Despite this constant testing, however, the instructors could not be sure that the students were actually doing the work in the books and learning the words. Thus, they introduce a highly visible, but pedagogically debatable, demand that the students write up words and definitions on index cards. The number of tests is reduced, and the type of tests used is simplified from essay tests to simple true/false, multiple-choice tests. In essence, the instructors' main concern has become the accounting for the students' work--not so much the teaching of any particular content or skill. This concern was borne out to some extent in the spring semester, during which vocabulary was not mentioned in class after the books were presented and explained in the first week of class. Instead, the instructors preferred to concentrate on reading comprehension.

As a reading instructor (in the summer semester) put it: "The difficult part of the course is reading comprehension--it really is. Vocabulary is really quite straightforward." As this instructor explains the system of making up vocabulary cards, and so on, she says to the students:

> I know that sounds high schoolish, but there's a very high correlation between work done--completion of the lessons--and the grade you make on the test. So I want to know if a bad grade is the result of your not doing the work in the book, or if it's the result of your being in too difficult a book.

Taking the statement at face value, the reading teachers' idea of the vocabulary component is that it does not require instruction--that if the student is in the proper book and does the work, then he will learn the words (or at least score well on the test). In order to make sure the student does the work, the instructors assign busy-work (making up vocabulary cards and so on) which they regularly check. In a sense, the vocabulary issue is minor. The real concern, for the teachers, is with teaching reading comprehension. Therefore, as little time as possible is spent on vocabulary in the classes.

Implications of the Vocabulary Component

It has been suggested that the vocabulary component is not integrated into the reading program in any meaningful way--that is, it is not related to reading comprehension--and that assertions that the vocabulary words were helpful in regular courses, or fostered the students' general cognitive development, cannot be supported. It seems rather, that the vocabulary component is the result of an underlying assumption that "vocabulary" is important (after all, look at how much of the standardized test deals with vocabulary), and therefore should be taught (after all, look at all the textbooks for teaching vocabulary); but no one seems to know exactly why vocabulary is important, or how it is important. The result is that the vocabulary component is relegated to homework of a very mechanical nature, the use of programmed texts or reading machines.

Having made these observations, we must now deal with the fact that the students in the reading courses, both in their comments in class and in interviews outside of class insisted that the vocabulary component was helpful and valuable to them--much more so, in fact, than the major component of the course (in terms of time allotment and in the eyes of the instructors): comprehension. How does one explain this?

Is it because the students actually see the words elsewhere in print, and having memorized the meanings, improved their reading comprehension? As one student put it:

> I'd come up to a word that I didn't quite understand, but I'd just continue. You know, I wouldn't stop and investigate in the dictionary and find out what the words meant, and now with the reading... I'll come upon the word and say, 'Boy!, so that's what that means!'

Perhaps the students think favorably of the vocabulary component simply because knowledge of words is a more visible and concrete accomplishment than the more amorphous "comprehension." As a student explained:

> ...the only reason that I got in there was that I wanted to understand terms, you know, not read novels or things, I just wanted to understand more words...to throw at people, you know...

Again, the reason for the students' favorable attitudes may be that, as most of them have histories of academic difficulties, and as the vocabulary component is relatively easy (credit for making up index cards, true/false tests) their success with the vocabulary encourages them and builds up their self-confidence:

> I learned a lot, you know. I went and took that test, I knew every word on it. So that wasn't that bad, even though I made a 95--that's five points off for not getting it all done.
>
> Interviewer: The words that you study, are those words that you run across very often?
>
> Student: Oh yeah. The book that he gave me is a very easy one. In fact, I know almot all the words. There's a couple all scattered around that I don't know...

To state the problem another way, the knowledge the students acquire in the classroom may have little direct effect on their success in other classrooms, or on the attainment of their occupational aspirations. It may, however, have an indirect relation insofar as (1) the knowledge is required to pass a course, and passing a course is a necessity for acquiring an educational credential which is (purportedly) translatable into a job; or (2) the acquisition process--however irrelevant the knowledge acquired is to anything else in the world--gives the student satisfaction and may improve his or her self-concept and motivation, and thereby lead to improved chances for success in other pursuits (inherent in this process are the cognitive and affective outcomes). There appears to be some truth in both of the alternatives outlined above. Yet, if we accept these as legitimate outcomes of education, we are faced with the argument that it doesn't matter what gets taught in the classrooms as long as a credential in produced or the student is made to feel better about him/herself. In fact, in response to the suggestion that the vocabulary component of the reading course was poorly integrated into the rest of the course and largely irrelevant to the other curricula of the college, the instructors responded by producing a large number of student evaluations in which the vast majority of students had answered such questions as "Do you feel you learned a lot of words?" positively.

The assumptions underlying the approach to vocabulary, and implicit in the standardized tests and the products of the textbook industry, are that words, decontextualized and given simple determinate meanings, are listed independently in memory, and that the size of this list of "store" or words determines or strongly influences one's reading ability or general intelligence. There also seems to be a pedagogical assumption--for this is how I interpret the classroom practice--that the way one builds these lists or stores is by rote memorization, item by item: reading as one word after another. This is not to say that the reading instructors would necessarily accept these assumptions as I have stated them. Rather, my argument is that these assumptions are embedded in the resources upon which the instructors rely to teach the classes. The reading instructors themselves would insist that the heavy reliance on the materials allows them to pursue their main goal in the classroom: the teaching of "reading comprehension." To see just what this means we now turn to a consideration of the comprehension component of the reading classes.

VI. The Comprehension Component of the Reading Classes

Teaching "comprehension" is such a seemingly self-evident task of developmental reading courses (indeed, in some senses "teaching comprehension" means "teaching reading") that no one feels obliged to provide a rationale for it (unlike "vocabulary" or "reading speed" or some of the other components of reading courses). What can be identified, however, is an explicit theoretical grounding for the particular type of curriculum used in this program:

> ...the purpose of any writing, to some extent, dictates the linguistic form that it takes...Kinneavy, for example, and certainly I've borrowed greatly from him in talking about the theory of discourse, ...breaks that whole frame of reference into four components: there's persuasive writing, referential writing, expressive writing, and literary writing....If we view the world of writing as breaking down into those four components...then I think...if you say, 'All right, the given ways of writing in the world are this,' then you have to sort of turn the thing around and say: any given reader must be able to read different sorts of materials according to their purpose, and to determine what that author's purpose is, what his aim is...and that those kinds of things are very relevant in a framework for a reader...My own theoretical framework is very dependent upon some sort of process theories of reading, like you come across in Kenneth Goodman...I think Goodman is right when he's talking about language processing in a hypothesizing process, based on cue-gathering...the more that we can alert the student to what language cues are, to certain kinds of writing, certain purposes of the writer, I think the better reading comprehension will result.

This emphasis on discovering the "purpose" or "aim" of the writer informs the pedagogical approach taken in teaching reading comprehension. However, the textbooks selected for reading comprehension instruction--or more precisely, the use of the textbooks--and the classroom practice involving other written language materials such as the novels, are not specifically linked to Kinneavy's model of discourse.

The Textbooks of the "Comprehension" Component

Unlike the Word Clues books, which have only two pages of introduction and no instructor's manual, the comprehension books present a rather elaborate framework of reading. Taking the 88-Passages to typify the others (it is, at any rate, by far the most commonly used of the three books in the series), we find the following characteristics.

The Student's Edition (1979 version by Gilmore, Sack, and Yourman) contains a two-page introduction in which the students are informed that the object of reading is to "master the author's thoughts," by means of "asking" the right questions. The students are told that the questions to ask are these "six basic questions":

1. What is the passage about?
2. What does the author say about the subject matter?
3. How does the author support his generalization?
4. What does the author want me to do?
5. What can I conclude about what I have read?
6. What does this word mean as used in this passage?

(1979, no page number)

The Instructor's Manual, while giving a rather extended exposition of the "Sack-Yourman model" of reading, labels these six questions under the following categories: Subject Matter; Generalization; Detail; Significance; Conclusion; and, Vocabulary in Context. These terms, especially the first three, are very important in the conduct of the reading classes. These are their definitions, as given in the Instructor's Manual:

1. A communication is about some area of discourse, some set of facts and ideas. This is, of course, the "topic." We label it SUBJECT MATTER.

2. The communication can be thought of as making a statement about its SUBJECT MATTER. This is the "main thought," or "main idea." We label it GENERALIZATION.

3. The author of a reasonably well-written communication will usually support his GENERALIZATION with detail: examples, illustrations, elaborative description, anecdotes, etc., to clarify or establish it. We label this supporting material DETAIL.

4. In some communications, the author will establish his GENERALIZATION and then move on to a suggestion or command to the reader to take action. The action becomes a logical step if the reader accepts the GENERALIZATION. We label this call to action the SIGNIFICANCE.

5. Further, the reader himself, or the writer, may draw some conclusions from any part of the communication. We label these CONCLUSIONS.

6. VOCABULARY IN CONTEXT, a concept with which you are familiar, need not detain us.

(Instructor's Manual:vii-viii)

In the students' edition of the 88-Passages book these six categories are transformed into multiple-choice questions; for example, to find the "SUBJECT MATTER," the student is given a question that begins "Select the Best Title," followed by five alternatives. To find the "GENERALIZATION," the student is given the phrase, "The main idea of this passage is that" or "according to the passage," or "The best statement of the main idea is that" or some other formulation, followed by five alternatives. The questions dealing with the other four categories are specifically based on the passages--usually they look like completion questions; e.g., "Man absorbs radiocarbon primarily from," followed by five alternatives (for DETAIL). The questions in the 88-Passages book are also given in the same order: Subject Matter, Generalization, Detail, Conclusion (sometimes more than one), Significance and Vocabulary occur only rarely.

The 66-Passages book is aimed at students reading on grade levels 1 - 8.5, while the 88-Passages is aimed at the 6th through 9th grade levels. Using the Fry and Smog readability formulas, as well as a formula of their own, Sack and Yourman claim that 90% of the passages in the 66-Passages book are written at the 6th grade level or below. Using the Flesch Reading Ease formula, they claim that 53 of the 88-Passages are written below the 8th grade level. Few of the passages in either book are more than a few hundred words in length.

By and large, the reading instructors had very favorable opinions of the Sack-Yourman readers, though one part-time teacher pointed out that:

> The 66-Passages are harder to grade, because it has more open-ended questions, but actually I like that better than the 88-Passages because the multiple-choice questions are sort of limiting.

As will be seen later, others--instructors and students--complained about the limiting nature, not only of the Passages book questions, but about the uses of the categories themselves.

The reading instructors were asked, in taped interviews, to give their rationales for using the Passages books. A part-time instructor, who had taught at the college before the Sack-Yourman books were introduced, compared them with the textbooks previously used:

> The first two semesters I taught this course, we had a different textbook...and it taught how to read efficiently, what to do to find the main idea, how to use the library...there was a section of vocabulary using roots and prefixes and suffixes, and there were tests on the book and we didn't have any actual comprehension sorts of things, so actually we were teaching how to read, and not reading. Now, I think we're teaching more a process than a subject matter. Then, students were reading in a textbook and then being tested over the material in the book--whether they had assimilated it. And I think what we're teaching now is probably more valuable to the student, because I think any of them could go out and read a

> self-help book and figure out what you're supposed to do. It's like the difference between knowing what you're supposed to do to lose weight and actually having someone guide you through the process of it...

The full-time instructor defended the books by stressing that they were the best available on the market, or as one said, that they "come closest to making the reading comprehension procedure an active process of analyzation."

Placement in the Textbooks

During the first class sessions of the reading course, students are given "diagnostic" tests intended to measure their ability to comprehend written materials. The tests themselves are really extracts from the Sack-Yourman readers. That is, three passages, along with the questions provided for the book for these passages, are given to the students. In one semester "diagnostic" tests of this sort were extracted from both the *66-* and *88-Passages*. From looking over a number of these tests, however, it was not clear what the basis of evaluation was. That is, many of them appeared not to have been graded at all, while in others there seemed to be no connection between the number of questions missed on these "tests" and the books into which students were placed. Students in this class, though some had been assessed to be on a fourth grade reading level and some above the 15th, were all placed in the *88-Passages* book. There was also a Cloze test, once again constructed on passages from the Sack-Yourman books; but there is no evidence that it was used for any purpose, and it was not administered again in the following semesters. In fact, there is now only one "diagnostic" reading comprehension test--the one derived from the *88-Passages* book. A reading instructor explained the use of the tests in this way:

> ...it is only necessary really to give the *88-Passages* test. And the reason for that is that the students scoring consistently 100% on that, he's going to do *100-Passages*. If you have a student who's scoring not well on that, he's going to need *66-Passages*. So really, the middle is all you need.

Instructors would also have students read aloud to them--especially students who scored poorly on the placement tests--before making final decisions about which book they were to be placed in (and thus which of the three "courses"--beginning, intermediate, and advanced--they would be enrolled in). However, the instructors later decided to discontinue the use of the *100-Passages* book: few students "placed" into them, and those who did were effectively excluded from the bulk of classroom interaction--the group discussions with the *66-*and *88-Passages* groups. It was decided that students in the "advanced" course would also work in the *88-Passages* book--thus getting the full benefit of class discussion--and that their work would be supplemented by a "speed reading" component, in which they worked by themselves with another text (by Sack and Yourman) and a timer. This rearrangement illustrates the types of accommodations instructors must make to organizational constraints (in this case a lack of time). It also suggests a possible assumption unerlying the teaching of reading: that one can teach the "skills" of reading independently of any consideration of what is being read. Thus, it is thought that students are better off reading materials (whose "readability" shows them to be below the "grade-level" of the students' "ability" as "measured" by a standardized test--materials which the students have "placed" out of on the "diagnostic" tests) which are perhaps too easy for them as long they have the benefit of the group discussions in which the instructor explains the "skills" and "concepts" underlying reading. This assumption is possibly to some extent implicit in most reading programs--indeed, the very idea of reading *courses*, autonomous and independent, not integrated with the regular courses of the college, not tied to any *content* or subject matter area assumes that there exists a "skill" of *"reading"* indifferent to the reader's purposes in reading and the features of the type of text being read. We will now turn to an examination of just how such assumptions are manifested in classroom practice.

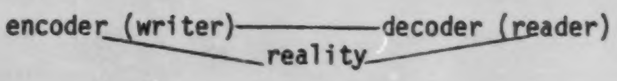
Classroom Practice

I begin this section with an account of a rather atypical event: an attempt by a reading instructor to explain to a class Kinneavy's theory of the "aims" of writing (at any rate, an interpretation of that theory). This attempt took place during the first semester I observed classes and was never repeated by any other instructor, to the best of my knowledge (for reasons which will perhaps be apparent). The event is worth reviewing, however because the theory the instructor tried to present remained the underpinning of his pedagogy (and that of the other instructors) in later semesters, even when it was no longer explicitly expounded. It provides us with a unique opportunity, then, to see these assumptions in practice--and to see some of the problems they create.

The lesson began with the instructor defining the "four aims of writing" for the students:

referential writing--meant to inform the reader
persuasive writing--meant to convince the reader
literary writing--meant to entertain the reader
expressive writing--meant to express a point of view

A few people are taking notes as the instructor writes this on the board. As the instructor finishes, he asks the class to give some examples of the different types of writing. Someone says that newspaper editorials are persuasive. Another student disagrees with this and asks why editorials are persuasive. Another student disagrees with this and asks why editorials should not be labeled expressive. The instructor replies that they may be expressive, but that their primary aim is "persuasive." The argument continues, until the instructor finally settles it by saying that the very fact that something is published on the editorial page implies that it is meant to convince the public of a certain point of view. He then draw a "communication model" on the board:



After finishing this diagram, the instructor says: "It all comes from reality. The writer encodes his ideas and on the opposite end of the continuum, the reader decodes the ideas." The instructor asks the class where someone writing "referentially" would fit on the model. There are no answers. The instructor continues: "Now, if I'm writing referentially, my focus will be very much on reality. A persuasive writer will aim where? The reader. The literary writer?" The class answers this time: "The reader." The instructor asks: "The expressive writer?" The class answers again "The reader." "The reader," the instructor asks, "No, he's trying to express his own ideas; he's in a dialogue with himself." The student seem to have trouble assimilating this, and after a moment, the instructor concedes that "If you're not writing for the reader to some extent, then there wouldn't be any reason for publishing."

Someone asks if "persuasive writing" is not "ideological." The instructor reples "Yes, but no necessarily so...you must be cognizant that all writers do have a point of view...it's not always obvious that something is written for a persuasive purpose."

Someone else is still not sure why newspaper editorials are not expressive. The instructor, instead of going into this again, says that "...the models are to be tested. What this gentleman was asking is just the sort of thing I want us to do. We want to see if our written material fits this model...."

The exchange between the instructor and the students highlight some important aspects of the instructor's conception of reading that were to reappear throughout the reading program. It appeared that what the students were objecting to was the inference from the instructor's presentation that a specimen of writing had to belong to one and only one category of writing (in terms of the model). The students were arguing that a piece of writing might fit into more than one category. The instructor first answered by offering the notion of a hierarchy of purpose (e.g., persuasion is more primary than expression in the case of editorials). But then he introduced a model that implies that writing is for one purpose only (the encoder-decoder model, which, as interpreted by the instructor, seems to imply that no expressive writing is ever published). The instructor then switches the question about ideological writing back to a position that a piece of writing can fulfill more than one function. The explanation was not clear; the students seemed uncertain about the entire discussion, and the argument was left unresolved. It is assumed that meaning is embedded in written language precisely and unambiguously for one of four purposes. The task of reading then becomes one of ciphering out exactly what it is that the writer intended to say. The "skills" of reading, then, are passive, receptive; the reader's opinions, attitudes, and motivations are not to intrude in the reading process. The instructor's conceptualization of this "skill" as completely abstracted for social usages leads to the confusion of trying to tie analytical conceptions of the functions of written language to concrete social manifestations of writing (e.g., the idea that newspaper editorials must be persuasive). The implication of the conception of reading described above is that for any piece of writing there is one and only one correct interpretation (from the assumptions that the writer "encodes" a precise and unambiguous meaning). The idea of purpose in writing takes precedence over the idea of purpose in reading.

The question of _why_ someone reads is reduced to the behavioristic notion that people read in order to understand what they read. This is, of course, unexceptionable, as well as empty. If one sees a man throwing seeds to the pigeons, and asks him what he is doing, he may answer, "I am throwing seeds to the pigeons." If one asks _why_ he is throwing seeds to the pigeons, however, one presumably expects more of an answer than "I am throwing seeds to the pigeons so that the pigeons will have seeds." Are the seeds thrown to feed the birds, or are they poisoned seeds? Are the birds being fed simply for humanitarian purposes, or does the man simply have nothing better to do: or perhaps he considers pigeons heavenly beings, and the seed-throwing is intended as a propitiatory act. The distinction is that which is commonly made in the social sciences between behavior--the throwing of seeds--and action--the meanings of the behavior. In this framework, then the reading instructors have reduced reading to a behavior--the decoding of unambiguous signals embedded in print by a writer. The reader as a social being is not considered.

Teaching Reading Comprehension with the Textbooks

The manifestation of this conception of reading can be seen in the conduct of the reading classes observed in one semester. During that semester, when the students were not taking tests, they were working on "reading comprehension." That is, working in the _88-Passages_ book, and then, later in the semester, discussing novels in small groups. The substance of these exercises in "reading comprehension" consists of the students reading a passage and then finding elements of it that fit certain categories. By and large, two categories are used, both taken from the Sack-Yourman books: Subject Matter and Generalization.

Subject matter is defined by the instructor and written on the board: "the primary topic being dealt with by an author. It identifies the precise aspect of the general topic that the author focuses on." To aid the students in finding a Subject Matter, the instructor goes on to define other terms: inclusive--"...to be inclusive is to be broad in scope; to account for all of the subordinate parts. It means there are broad boundaries"; exclusive is defined as "to shut out as a member of a total group; to be exclusive is to particularize. There are limited boundaries." A third term, "vague," is defined as "not clear, precise or definite; lacking in defined limits." However, the bulk of the work done on comprehension--the work in the _88-Passages_ book, has multiple-choice questions. In discussion of these passages, the instructor will usually simply seek, or give, the correct answer. The only places where the subject matter and the generalization have to be derived by the students are in practice handouts and tests. Even here, however, the reading task was more of a searching operation than a process of interpretation. The instructor in this class focused entirely on what was called a "stated generalization." The students were asked to read a passage and find a _sentence_ which "contained the generalization." That is, the students were taught to look for the main idea _in print_, their own paraphrased statements of the main ideas were not acceptable. The situation became such that, when the instructor asked the class for the generalization, he would be answered with a number of a sentence (e.g., "the second sentence"), rather than with an actual statement of the generalization. Toward the end of the semester, the instructor did move toward a conception of an "unstated generalization"--that is, the students were taught to look for a generalization that had to be formulated in their own words. However, this almost always translated into finding a generalization that would be acceptable to the instructor. No ambiguity, no conflicting interpretations, were permitted by the instructor. As one student put it:

> ...I was sure that they were right and I got a couple of them wrong, and I thought, why is it this way? And he says, 'Well, because I felt...' So it was because he felt that way. So you still have to formulate an opinion of what you think the teacher will feel...

The instructor's emphasis on terminology and categories became so overriding that he began to place a special page on all comprehension tests in which the students had to define the terms that were being used in class. This led to some odd situations. For example, handing back one test, the instructor explained to the class that most of the people had done well in analyzing the passages, but that the page of definitions had caused great problems, the implication being that memorization of the terms had some value beyond helping the students comprehend passages. Knowledge of the categories, then, became an end in itself, rather than a means toward reading comprehension. As far as the instructor was concerned, it was not a matter of generalizing or inferring, it was a matter of finding some concrete statement that was a "generalization." To find these statements, was, in an operational sense for this instructor, to comprehend a passage. There is a possibility, however, that in emphasizing the terms and categories so heavily, the instructor may have added a layer of difficulty to the reading. As one Mexican-American student, a recent GED, and fluent reader in Spanish, put it:

> ...all those words she says, they are new to me...I first started school when I was eleven years...I didn't have third grade nor fourth grade and probably all those words she's using, even the ones I miss, they teach in those years.

Teaching Reading Comprehension with Novels

This "definition" of reading as the ability to categorize written language using terms specified by the instructor was even more apparent in the way the novels were presented to the class. The students were asked to read the novels out of class and to spend their time in class discussing the novels by filling in categories on a worksheet distributed in class. In the first place, many students had difficulty with such concepts as "objective," "impartial," and "detached" author. It was never explained why the ability to use these categories was expected to aid reading comprehension (the categories were, in fact, borrowed from a textbook written by two English instructors at the college and used in English courses there). On tests dealing with the novels, the students were asked not only to interpret the novel and answer questions about it, but to define terms. As the instructor put it after handing back the test on the first novel, "The test was not only testing how well you read the novel, it was also testing how well you understood those concepts." He instructed the students that when they read the novels, they should go through and mark or highlight the passages that corresponded to the categories on the worksheet. Once again, however, it was the instructor who decided what the correct answers--that is, the proper uses of the categories--were. No alternative interpretations were permissible. Several students seemed to object to this, to feel that it was constraining:

> I disagreed with her ideas of these novels, and even the test, I disagreed with the test sometimes too, because she had stuff on there that I really didn't agree with, but I don't know, it's up to the teacher...

Another student, referring to the other students in the class, said:

> I think they're reading it hoping to find the answer that he wants 'em to have...I don't think none of 'em are formulating their own opinions about it, and I think that's important...these concepts should be on a one-to-one basis. If it fits for you that's fine, and if it doesn't it shouldn't be something that you pass out. Description sheets are very important, but that's after you've read the book...and then if...you find that you can't come up with the answers, then maybe it's time to go back and look...

It is worth pointing out that two of the three novels used in the course--To Kill A Mockingbird, and The Ugly American--were made into movies. In several cases this seems to have played a role in the students' comprehension of the novels:

> Student: The Ugly American, I didn't even read that one, to tell you the truth. (laughs)
>
> Interviewer: Well, how did you do on the test?
>
> Student: Well I passed it, I made a C on it. I was surprised, I had seen the movie, not all of it but part of it. Yeah. But To Kill A Mockingbird, I love that, I enjoyed it. You know Gregory Peck, a lawyer and all, real high esteem.

Revisions

The difficulty students had in fitting aspects of the novels into the categories given by the instructors became a subject of some interesting discussion at a meeting of reading teachers held at the end of our first semester of observation. One of the part-time instructors commented that her students were uncomfortable with some of the concepts used: e.g., "point-of-view," and "character." Another instructor replied that all instructors should spend more time talking to the students about those concepts, but not "in terms of the book itself... They need to learn to apply those skills to any book, not just the ones we use in class." Notice, again, the equation of reading "skill" with the ability to manipulate categories. The part-time instructors reiterated that their students had considerable problems with the concepts presented out of a context, "my third level students had no concept at all of point-of-view, setting, or any of that. Especially the GED's." She went on to say that she would rather teach them the first book (in terms of the categories)--to let them have a "successful" experience with reading--because, she said, many of her students come into the class with very negative attitudes toward reading:

> I didn't go into the book and talk about it in class, because you told me that if I did they wouldn't bother to read the book. But then the scores on the first book test were just too low...

An instructor replied that he thought "...if you go over the book in class, then you're teaching content and not reading." The argument went on until a second full-time instructor intervened and suggested that both methods could be used; and after some discussion, all instructors agreed to teaching the concepts in terms of the first novel, and then "going cold" on the second novel--to see if the students had really learned the material.

Instruction in the Reading Classes after Revisions in the Syllabus

In part, as a result of the staff meeting described above, and in part through the development of new handouts and exercises, the conduct of the reading classes the following semester differed considerably from the previous one. Basically, the changes amounted to a more gradual approach to concepts and categories--achieved by division and multiplication of categories previously used. What follows is a skeletal description of class activities.

Generalizing Exercises

The first step in the presentation of the comprehension component was what might be called the "categorizing" exercises. The instructors read a series of words and told the class that one of the words was a "general" word, while the rest were "specific." The students were to pick out the "general" words. For example, one list consisted of the words "Pepper, Nutmeg, Cinnamon, Spices, Cloves, Ginger." None of the students were observed to have any difficulty with this, though many appeared uncertain of the purpose of the exercise. In one instance, when the instructor asked the class to explain "what we were doing in this exercise," there was a long pause, and then the answer "elimination?". The instructor misheard this as "Relation, right that's a good term for it." After this, the students were introduced to the Sack-Yourman texts, but, unlike the previous semester, the students were not expected to grasp the entire "model" at once; rather much more time was spent, first, on elaborating the concept of "subject matter " and the concept of "generalizations" was approached more gradually. One example of the new approach to generalizations was the use of what the instructors referred to as the "levels of generality" exercises in which, for example, the students were given a "general" term (e.g., "tool") and were asked to pick out corresponding "specific" terms from a group (e.g., "chair, hammer, granite, apple"). Another exercise in this lesson had the students order a list of words by their "level of generality," for example:

continent
countries
states
cities
towns

After working over such exercises, the students are given handouts (prepared by the full-time instructors) containing sample passages which they work over in groups without the instructor. Observations of these groups suggest that the main problem from the students' point of view was to come up with something that would satisfy the teacher. For example, in preparation for a test, the students were given an exercise in which they had to find the subject matter of a passage and its "stated generalization." This was the passage:

> President John F Kennedy feared small, crowded rooms. Richard Burton hates flying. The Queen of England flees from spiders and won't go outdoors in a thunderstorm. Millions of people around the world from all walks of life suffer from fears which are called "phobias." The word phobia comes from the Greek word phobos, meaning fear. Many people learn to handle their fears. But those who are not able to may spend their lives worrying about them. The phobic person's fear often results in physical problems. He may feel as if he's fainting, suffocating or even dying. He may pant, sweat, tremble or suffer nausea. He may run away or stand frozen in his tracks. According to doctors, phobias can be traced to an earlier situation which became the basis for a lasting fear.

Now, according to the instructor, the "stated generalization" of this passage is "Millions of people around the world from all walks of life suffer from fears which are called 'phobias'." All of the other sentences are considered "details." However, it is not clear the the fourth sentence is any more of a "generalization" than several others that follow. Conceivably, it is the "most general"--in the sense that it assigns a property to a group of "millions of people"; whereas the other sentences speak of "many" or "the phobic person." Still, one is hard pressed to find a "main idea" in this passage in the form of a sentence--and so were the students. In one discussion group, a woman tried to argue that the generalization was "Many people have phobias." To this, someone replied: "No, you're not supposed to make it up, you have to pick it out!", and the same student went on to explain that it was necessary to "cooperate" with the instructor: "You have to give him what he wants." However, for reasons just suggested, it was difficult for these students to determine just what the instructor did want--that is, the students had no trouble determining that the fourth sentence was the most general (in the instructor's sense, as demonstrated in the "levels of generality" exercise), but they were uncertain whether the instructor would consider this the "subject matter statement" of the "stated generalization." The result was that when the group finally put its answers up on the board, its "subject matter statement" was: "People from all walks of life suffer from fears called 'phobias'" while its "generalization" was "Millions of people around the world from all walks of life suffer from fears which are called 'phobias.'" These answers were accepted by the instructor.

Comprehension Instruction with Revised Syllabus

To this point, the structure of the reading classes has been considered from what might be called a paradigmatic perspective. That is, the focus has been the components of the class--the instructors' rationales for them, their content, and the means of their presentation. To balance the account given here, it is appropriate to communicate the dynamics of the classroom experience. To do this, we propose some extended descriptions of the introduction of the comprehension component in the last semester in which the reading classes were observed. This description is also important because it provides a look at the latest change in the course syllabus--the use of a new textbook, and because it demonstrates once again how the pedagogy of the classes was changing over time.

The new textbook introduced in the next semester was the Sack-Yourman Developmental Speed Reading Course (SYDSRC) text. The book is an anthology of magazine and newspaper articles, originally intended for use with timers, but used by the reading instructors this semester for what they were calling "teacher-directed comprehension lessons." The rationale behind this was that the articles in the book were much closer to what the student might expect to find in everyday reading experiences and that there were no multiple-choice questions to over-direct the students' formulation of "main ideas" and so on. All of the other texts previously described were retained, though their use was pushed more outside of class while the SYDSRC book and the novels were given more in-class time. The SYDSRC books were "checked out" to the students, but as an afterthought the instructor told the students to go ahead and underline and mark in the book.

The first use of the SYDSRC took place early in the course when the instructor assigned the students two articles on page 17 of the book, and, while these were being read, wrote the following exercises on the blackboard:

> 1. Decide if there is a sentence in the article that contains the writer's main thought.
>
> 2. If there is not a sentence that contains the main thought--write your own sentence giving the main thought.

The instructor asks if there are any questions, but there are none, as the students are busy reading over the articles. The students break up into small groups of three or four, and the instructor moves around from group to group. Here is the first sentence on page 17 that the students are working on:

> A serious man was Bacon, a master of the dialectic sleight-of-hand so much admired at the time, a reader of strange languages and curious about distant countries beyond the borders of Christendom.

> In these ways he was not unique. In one respect only he differed from the men of his time. He had little regard for authority. When he read in some ancient author that a vessel of hot water freezes faster than one of cold, he didn't accept this as an ultimate truth. He took two vessels exactly alike, filled them with hot and cold water, and set them outside in the street. When the cold water froze first, he didn't conclude that his eyes deceived him or that a devil was laughing down the chimney. He said the ancient author was mistaken or a liar. When a diamond-cutter told him that he broke diamonds in a mortar like anything else, he didn't call him a scoundrel, but concluded that Pliny knew as little about diamonds as he did about the tides.

The instructor explains to the group that

> In talking about reading comprehension in this course there's a lot of discussion of terms--many teachers talk about the "main idea" or the "central idea," "main thought," "generalization"--as far as we're concerned here, they all mean the same thing...In every piece of writing there's a main thought, and it is supported by details. That's the secret of reading-recognizing the main thought and seeing how it's supported by details. OK, now did you all find a sentence in the first article that contains the main thought?"

A student says "First sentence." "The first sentence," the instructor repeats, "OK, then you think the main idea was that Bacon was curious?" Another student disagrees here, saying the the second sentence says that Bacon's curiosity was not unique. This student goes on to say that the main thought was contained in the sentence: "He had little regard for authority"--and that everything below this sentence merely exemplifies this disregard for authority. The instructor implicitly endorses this answer by choosing this point to shift the discussion back into a more general vein. He reads the first two sentences out loud stressing the final sentence--...he sets things up in that first sentence, and then in the second sentence he discards it. He lists all these characteristics that Bacon had; then he says that they were not unique. Then he begins to talk about the way in which Bacon was unique--in his lack of respect for authority. OK, what are the details that support this idea?" The students give examples. One student asks if "...that means that it's not necessary to begin your paragraphs with the main idea in the first sentence." The instructor assures her that this is not the case . In this instance, then, the instructor seems to be clarifying the instructions and terms that the students are to use. Taking the students' answers, and then either letting other students argue for their own answers, or weeding out the incorrect answers himself. In this and other instances observed, the instructor would generally go from student to student until he was given a correct answer, at which point he would then explain how the rest of the passage fit in with the "main idea." The next example, which comes from the introduction of the 88-Passages book, shows what happens when the correct answer is not forthcoming from the students.

After reading the "six basic questions" the instructor begins, "If I asked you what the subject matter of the passage was, I'm asking you what it is about. The statement of the subject matter could very well be the title of the passage. You'll notice that none of the passages in this book have titles--one of the things they want you to do is find the subject matter of the passage. Now what would be a good title for this passage?" This was the passage:

> Not long ago my wife sent me to town on an errand. I walked to the hardware store, and bought a small can of paint. Then I returned home. Handing my wife the paper bag containing the paint, I said "Here's the paint you wanted." My wife looked in the bag, then looked at me. "I told you " she said slowly, "to get me a quart of vanilla ice cream."
>
> Alarmed over my absentmindedness, I paid a call on my family doctor. He was very kind. "Your case, he said, "is a simple one and should give you no concern. If you know you're absentminded, you're okay. It's nothing to worry about. But if you're so far gone you don't know you're absentminded, you may be in trouble."
>
> "Many famous people have been absentminded," the doctor told me. "Thomas Edison was standing in line one day to pay his taxes. When he arrived at the window, he found that he had forgotten his own name. He turned to the man next in line and asked, 'Can you tell me who I am?' The man told him."
>
> I felt much better and got up to leave. "Thank you, doctor," I said. "How much do I owe you?"
>
> "Ten dollars for the check-up," the doctor answered.
>
> "But doctor, I didn't have a check-up."
>
> The doctor look puzzled. He scratched his head. "Oh, yes," he said, "it was the patient before you. How absentminded of me!" (88-Passages:4)

One student suggests that a good title would be "Three Examples of Absentmindedness," while someone else suggests "The Commonness of Absentmindedness." The instructor writes on the board:

Absentmindedness
Three Examples of Absentmindedness
The Commonness of Absentmindedness

The instructor then asks the class which of these three titles is best: "You're seeking a broad general statement that can account for supporting details. Absentmindedness is really too general; it's too broad. Let's look at it another way. What is the difference between the main idea and the supporting evidence?" The class decides that "Three Examples of Absentmindedness" is the best title, apparently because it was the most "specific" of the three. The instructor asks the class if it "can see the difference between this writing, and the writing in the Speed

Reading Book? What type of writing is this?" One student suggests "informative," but the instructor tells him that "informative" is an "aim" of writing and that she's after a "type." (The distinction is not explained.) Another student suggests that it is "informal" writing. The instructor says, "Yes, it is informal, but what I'm trying to get at is this (writing on the board): Narrative/Expository." The instructor says that he doesn't remember where this dichotomy comes from, but that the sort of writing in the 88-Passages book is "narrative."

The instructor then asks the class if there is a sentence in the passage that contains the generalization or main idea. There are many murmured responses, no one quite saying anything in a public voice. The instructor apparently doesn't hear what he wants, and so announces, "Well, what I'm hearing is that you all seem to agree that the main idea is located somewhere in one paragraph; which paragraph is that?" There is a general murmur indicating that the main idea is somewhere in the second paragraph. "OK," says the instructor, "remember that the main idea doesn't have to be stated in a sentence in the passage. I want you all to write out at the bottom of the page a sentence that can serve as the main idea statement." After a pause, the instructor tells the class to go ahead when they are through and answer the multiple-choice questions that go with the article. There is another pause, and then the instructor asks everyone in the class to write the sentences containing the main idea on the board (the students go up in groups). These are the main idea sentences written by the students:

1. Absentmindedness is not something to be self-conscious of as if it were a disease.
2. If you know your absentmindedness, it's nothing to worry about.
3. Absentmindedness is common; people should not take it serious.
4. To me the passage is informing the reader to be aware about absentmindedness.
5. It's not bad to be absentminded if it doesn't go too far.
6. Being absentmindedness is not a problem.
7. The main idea is that a lot of famous people are absentmindedness. That people know when they forget.

When these sentences have been written, the instructor re-reads the second paragraph of the passage out loud, then reads the sentences on the board out loud. He asks the class what they think of the sentences. There is no comment from the class, so the instructor begins to discuss the sentences himself. He criticizes sentences 2 and 4 for injecting "personality" into the main idea statement. The instructor says that main idea statements should be very straightforward and descriptive. Sentence 7 is criticized because it focuses too much on a detail. Sentence 6 is criticized for being too general. The rest of the sentences, the instructor, says, are acceptable. The grammatical errors are not mentioned, and the class goes on to answer the multiple-choice questions associated with the passage. (Incidentally, the multiple-choice question dealing with the "generalization" is "The passage indicates that absentmindedness is A. rare, B. widespread, C. a grave problem, D. a matter for concern, E. none of the above.)"

Discussion

It can be seen from the preceding descriptions that, after the revisions brought about by the staff meeting, there has been some movement toward having the students generate their own conceptions of "generalization" and "subject matter," rather than simply asking them to choose among the rigidly-set alternatives of the multiple-choice questions. Still, there is an overriding concern with teaching the students to manipulate terms and "concepts" (even though the number of terms and categories has been increased), independently of the content of the text--indeed, attention to content is seen as a danger to be avoided. The assumption underlying these classroom practices, as well as the textbooks and standardized tests, is that the "skill" of reading exists independently of the act of reading--much as the skill of typing exists independently of the actual text being typed. Similarly, the skill perspective implicit assumes that the reader is a passive actor, a "receiver" whose essential task in reading is to decipher the meaning (the "generalization") that the author has encoded in the text. The purposes of the reader, the content of the text, and its usefulness to the reader are explicitly excluded by this perspective. Reading is considered exclusively as a technical-instrumental problem rather than as a communicative ability.

The skill perspective sketched in this report is probably a general phenomenon in reading programs throughout the country: it informs the textbooks and tests that are produced and distributed to reading programs, the technologies used in reading classes, the training of reading instructors, and the basic research on which that training is grounded. Indeed, the very idea of "reading classes" makes little sense outside of a skill perspective. One reason for this pervasive influence seems to be the overwhelming focus of researchers and educators on the problems of teaching beginning reading--teaching young children to read. In the context of the child first becoming acquainted with written language the skill perspective may appear more salient (the child's use contexts are fairly sharply constrained to the family and the school), but there are clearly problems in using this perspective to examine the written language use of adults who have been reading and writing in some fashion for over a decade--who habitually use written language for diverse communicative and performative purposes (even if these be nothing more than "reading People magazine" and "filling out job applications," as some instructors suggested to us).

In many ways, the reading courses described above illustrate how conscientious instructors try to accommodate their students' needs by progressively modifying and contextualizing the "skills" they deal with in the classroom. At the same time, we must note that these instructors were generally criticized by their colleagues on other campuses for their attempts to use everyday types of writing in the classrooms (e.g., the novels). This peer pressure for a strict adherence to the tenets of the skill perspective is but one aspect of the paradoxical position of reading instructors in developmental reading programs. On one hand, as we have noted, the reading instructors are generally aware of the diversity of needs presented by their students; at the same time they are constrained to use tests and text materials which implicitly embody a skill perspective--which assume a homogeneous student population whose needs can be reduced to the need to learn a set of categories and concepts with which to approach written language.

It is possible to hypothesize about the general nature of the assumptions underlying this perspective. H. G. Widdowson (1978) has made a series of distinctions which seem useful for the analysis of reading instruction in light of the foregoing discussion. Widdowson begins by making a distinction between usage (referring to knowledge of the language system), and use (referring to the knowledge needed to use language to achieve some communicative purpose) (Cf. Beaugrande, 1980, 1981, for a similar distinction between "virtual" and "actual" language systems). He goes on:

> We may say that the realization of language as use involves two kinds of ability. One kind is the ability to select which form of sentence is appropriate for a particular linguistic context (usage). The second is the ability to recognize which function is fulfilled by a sentence in a particular communicative situation (use) (1978:6).

Later Widdowson makes a parallel distinction, with regard to reading, between comprehending and interpreting:

> ...reading can refer to the ability to recognize sentences and their meaning as linguistic elements or it can refer to the ability to recognize how they function as parts of a discourse. The former ability is clearly the receptive analogue of composing and the visual analogue of hearing. Let us use the term comprehending to refer to this ability. Comprehending in this sense is the ability to recognize sentences manifested through the visual medium and to associate them with their correct signification. It corresponds with hearing in the aural medium. The question now arises as to what corresponds with listening in the aural medium.
>
> Reading as the understanding of discourse does not simply involve the recongition of what words and sentences but also the recognition of the value they take on in association with each other as elements in a discourse. What happens when we read with understanding is that we actively work out what the discourse means as we go along, predicting what is to come by reference to what has preceded. Reading in this sense is a kind of accomplishment whereby a discourse is created in the mind by means of a process of reasoning...Essentially this ability enables us to create or recreate discourse from the resources available in the language system and, on occasions, from other conventional symbols...We will call this ability... interpreting. Interpreting, then, is the ability in the visual medium which corresponds to talking in the aural/visual medium, with the difference the in talking the productive/ receptive aspects are made overt in saying and listening (1978:63).

From these sets of dichotomies, Widdowson draws the overarching distinction between "linguistic skills" and "communicative abilities":

> Let us say that those skills which are defined with reference to medium (speaking, hearing, composing and comprehending) are

> linguistic skills. They refer to the way in which the language system is manifested, or recognized to be manifested, as usage. And we will refer to those skills which are defined with reference to the manner and mode in which the system is realized as use as communicative abilities. Communicative abilities embrace linguistic skills but not the reverse (1978:67).

Now, looking back at the reading classes it is clear that at least for the pronunciation and vocabulary components, it is usage rather than use which is being concentrated upon. But what are we to say about the comprehension component? Certainly the matter is not so clear cut since, by focusing on the search for a generalization summarizing the meaning of a passage, the reading instructors are paying some attention to the communicative functions of the text. However, as we have seen in classroom practice there are no clear criteria for determining the "generalization" of a passage; the students are reduced to guessing, looking for the most generally-stated sentence in the passage and offering it to the instructor as the "generalization." The problem is that, with the exception of the novels, the materials used for teaching comprehension are "extracts" of real discourse, and as such are abstracted from the realities of written discourse:

> If we read a newspaper report...we do so because we have an interest in its topic and as we read we associate the contents with our existing knowledge. We read what is relevant to our affairs or what appeals to our interests; and what is remote from our particular world we do not bother to read at all. To present someone with a set of extracts and to require him to read them not in order to learn something interesting and relevant about the world but in order to learn something about the language being used is to misrepresent normal language use to some degree. The extracts are, be definition, genuine instances of language use, but if the learner is required to deal with them in a way which does not correspond to his normal communicative activities, then they cannot be said to be authentic instances of use. Genuineness is a characteristic of the passage itself and is an absolute quality. Authenticity is a characteristic of the relationship between the passage and the reader and it has to do with appropriate response (Widdowson, 1978:80).

Here is the crux of the matter: the written materials used in the comprehension component of the reading classes--even the novels--are made inauthentic, that is, disassociated from any practical use, by the exclusive emphasis on abstract "concepts" and "categories" of language. They are made irrelevant to the students as communication by being purposefully separated from any use contexts. One of the results of this general practice is that, as Aron notes, "community college students frequently have difficulty applying skills learned in reading and study skills courses to actual content classes" (1978:233). Widdowson discusses the problem in more general terms:

> It is likely to be easier to extend a knowledge of use into new situations and other kinds of discourse than it is to transfer a

> knowledge of usage, no matter how extensive, to an ability to use this knowledge in the actual business of communication.
>
> The matter of transfer of ability relates to a more general issue in language teaching pedagogy. It seems to me that an overconcentration on usage may often have the effect of putting the language being learned at a remove from the learner's own experience of language. As I indicated earlier, normal communication operates at the level of use and we are not generally aware of the usage aspect of performance. By focusing on usage, therefore, the language teacher directs the attention of the learner to those features of performance which normal use of language requires him to ignore. Thus, the way the foreign language is presented in the classroom does not correspond with the learner's experience of his own language outside the classroom, or in the classrooms where he uses the language in his study of other subjects. On the contrary, the way he is required to learn the foreign language conflicts with the way he knows language actually works, and this necessarily impedes any transfer which might otherwise take place. By effectively denying the learner reference to his own experience the teacher increases the difficulty of the language learning task. A methodology which concentrates too exclusively on usage may well be creating the very problems which it is designed to solve (Widdowson, 1978:17-18).

The argument here is not that teaching reading is the same as teaching a foreign language, but that the pedagogical practices in the two areas may produce similar results: by overemphasizing "concepts" and "categories" (which, if they are used at all by accomplished readers, are tacitly acquired and automatically utilized) at the expense of the meaning or relevance of the texts read (to the point where a student can do "poorly" on a test, not through any lack of comprehension, but by being unable to define the terms used to analyze the text), the instructors may be training the students to focus their attention while reading in a way which will have little relevance outside the school. By teaching reading as a "linguistic skill" rather than as a "communicative ability" (and "communication" here implies that the reader--not only the writer, as the reading instructors would have it--possesses a purpose in written communication) the reading instructors may concentrate students' energies not on the types of communicative situations which they would be likely to encounter in everyday life (reading for a purpose), but on reading in the linguistic contexts which, if they are to be found anywhere, are strictly academic (e.g., in English classes, reading courses, or standardized tests--and indeed the students in the reading courses generally improved one or more grade-levels on re-taking the standardized test at the end of the semester). In fact, the reading instructors usually hold that their aims are to train students for "academic" careers. In one conversation with a reading instructor, on the question of why students in the ABE/GED programs were excluded from the developmental reading classes (for purely legal-administrative reasons, but neither interviewer or instructor knew this at the time), the following exchange took place:

> Interviewer: ...ABE/GED are supposed to make up for the elementary and high school years; and in a sense, what you're teaching in the reading classes is to make up for that same thing too.
>
> Instructor: But the difference is, as I see it in my mind, I think is that the ABE and the GED program provide someone the means to obtain the high school diploma. I think we're trying to do more than that. I think that what we're trying to do is to enable somebody to enter an academic field of some kind....

Other instructors noted an "academic" bias to the reading courses, and to some extent such a bias is reflected in the administrative position of the developmental programs: in the college under study, the program is centralized and autonomous--but it is administratively housed in the "academic-transfer" program area instead of being independent or being in the "vocational" program area (the result would be similar for the majority of programs (decentralized) which are incorporated in existing traditional transfer programs such as English.) The image of a reader's purpose in reading that is projected by the skill perspective is strictly circumscribed to performance in school contexts--more accurately, school contexts in which the skill perspective dominates (English courses, for example). This is not a trivial project--English courses and the like are generally required of all students in the college, and the reading courses are performing a service if they do indeed prepare students to perform better in these courses (we know of no good research on the question). But it must be recognized that most of the communicative situations the students will encounter (and it is also likely that the students' experiences in the reading classes will in some way shape their willingness to enter into certain types of communicative situations using written language)--in school courses not grounded in the skill perspective, and in most situations outside the school--will demand a type of communicative competence at odds with the "academic" biases of the skill perspective. To some extent, the reading instructors themselves recognize this. One instructor, for example, attributed the reading problems of the students in her classes to the fact that "they never read! People who come to this class probably haven't picked up anything other than People magazine in ten years...You know I have people tell me, 'this is the first book I've read since I got out of school,' and so surely with that, they can't read."

> Interviewer: Do you think that the most that the students get out of this class is that they're gonna read more? Or do you think that what they learn here they will retain, if they go back to reading nothing but People magazine?
>
> Instructor: No, I don't think they will. I think they'll lose it...but I think most people that are taking this class are taking it because they're taking other courses here, and if they continue taking courses here and those courses involve reading, they're going to have to use the skills to a certain extent.

But our investigations of other classes convince us that the extent to which these "skills" are used in other classes is highly uncertain. And the assertion, implicit in this instructor's comments and explicit in those of other reading instructors, that the students in the reading program are pursuing two- or four-year degrees is not always borne out in fact.

Some Arguments on the Social Nature of Reading

The description of the reading program has been critical in nature, but we wish to avoid the suggestion that we were evaluating one particular program. Rather, we were attempting to extract from our observations the assumptions about written language upon which the curriculum and pedagogy of the reading courses were grounded, and on this basis to hypothesize about the assumptions and orientations that inform reading programs generally. One assumption in particular seems to merit special attention: the assumption that "reading" is essentially an asocial activity, that the reader's experiential background and knowledge of the world, his or her motivations, interests and purposes--that all of these are irrelevant to or in some way distinct from the reading process itself. As a pedagogical assumption for the teaching of beginning reading, this is perhaps an indispensable simplifying assumption. However, we are speaking here of literacy development: the fostering of communicative abilities in populations of adults who in most cases have already acquired the beginning "skills" of reading (the reading instructors, for example, told us that none of the students in their courses were "non-readers"--that such students were treated on a one-to-one basis if they managed to get into the college). These are students who are in most cases living independently and are engaged in the economic and social world, students who are enmeshed in webs of social relationships demanding the *use* of written communication, students whose needs, motivations, and purposes are determining influences in their attitudes toward and uses of written language. In this context, it seems to us that the asocial assumptions of the curriculum and pedagogy of "reading" should be called into question.

We have, therefore, decided to include here a preliminary and admittedly inadequate attempt to trace out some of the social factors in reading. Readers should treat these arguments as speculations and conjectures, awaiting refutation or elaboration.

Written Language as Communication

Until recently, little attention has been paid to the differences betweeen written and spoken language. The following quotation from Sapir's *Language* illustrates the traditional point of view on the matter:

> ...each element (letter or written word) in the (written language) system corresponds to a specific element (sound or sound-group or spoken word) in the primary system (spoken language). Written language is thus a point-to-point equivalence, to borrow a mathematical phrase, to its spoken counterpart (Sapir, 1949:19-20).

With the invention of mechanical means of recording speech, this view of the relationship between writing and speaking is gradually disappearing from linguistics. It is now recognized, for example, that there are many syntactic and prosodic elements in spoken language which do not appear in written language (see, e.g., Crystal, 1971:22-23; 57-60). Moreover, there is now a recognition of the social and interactional aspects of spoken language which do not have strict "equivalences" in written language.

However, this new orientation to language has had a curiously one-sided emphasis. The complexities of spoken language are now being recognized and systematically investigated (e.g., in the fields of "discourse theory" and the "ethnography of speaking"), but there has been little progress made toward a complementary reappraisal of our understanding of written language. The reaction against Chomskian notions of linguistic "competence" led by Dell Hymes and others seems to have generally by-passed the study of written language. The remainder of this section represents a modest and preliminary attempt to consider some of the differences between written and spoken language, and to identify some of the more crucial social-situational aspects of written language use.

A fundamental proposition underlying the study of the social uses of language is that:

> ...access to and command of resources for speaking as well as knowledge and ability for the conduct of speaking (i.e., speaking competence) are differentially distributed among the members of the social unit (Bauman and Sherzer, 1975:112-113).

In other words, all members of a social group do not necessarily share the same set of linguistic resources--and these differences may vary by individuals, or by social role, or by sub-groups within the larger group--nor do all members of the group share common rights to the use of certain types of language--by virtue of their social persona, or by virtue of their being excluded from social settings to which certain types of language use are reserved, or through other systems regulating language use.

The implications of this organized diversity are that the interaction of language and social setting may vary along a number of dimensions and that the frameworks of expectations which define a communicative situation are necessarily negotiated or enacted rather than given or found by the communicating participants. Hymes (1974:54-63) has provided a useful list of the various dimensions of the communicative act:

1. Message Form
2. Message Content
3. Setting
4. Scene (psychological or cultural definition of the setting)
5. Speaker or sender
6. Addressor
7. Hearer, or receiver, or audience
8. Addressee
9. Purposes (in the sense of "outcomes")
10. Purposes (in the sense of the "goals" of the participants--which need not be the same to all participants)

11. Key (the "tone, manner, or spirit in which an act is done")
12. Channel (e.g., verbal, written, etc.)
13. Forms of Speech (e.g., "languages," "dialects," "registers," "speech styles")
14. Norms of Interaction
15. Norms of Interpretation
16. Genres (categories of communication: poems, myths, etc.)

The different types of language or language use embedded in these dimensionalities do not co-occur randomly or arbitrarily, but are interrelated sets of expectations ("frames," "schemas," "scripts," etc. See Schank and Abelson, 1977, and Tannen, 1979, for some of these distinctions) which are enacted or negotiated by the participants (perhaps through the use of "contextualizing cues;" see Gumperz, 1977).

In what follows, the implications for language use of certain aspects of the written channel of communication will be considered, specifically: the possibilities for "planning" offered by written text; the use of exosomatic means of transmission; the temporal flexibility of written text; the relationship of reader to writer (e.g., their temporal or spatial separation); situational aspects of written language use; and the functional specificity of written language (see Kleiman and Schallert, 1978, and Rubin, 1978, for different frameworks for written language--I have tried to incorporate their observations into these remarks).

The Interaction of Visual and Linguistic Aspects of Language

In a 1946 paper, Dwight Bolinger described certain aspects of written language which he termed "visual morphemes": homonyms, spellings with special semantic components (e.g., the -or suffix as a sign of prestige), and the like. He concluded that "...it is probably necessary to revise the dictum that 'language must always be studied without reference to writing'" (Bolinger, 1946:340). This suggestion has rarely been taken up (although, see the work of Josef Vachek) and what follows here must be regarded as fragmentary and speculative.

Planning

There are two striking qualities peculiar to written language: it is planned, and it depends on exosomatic means of transmission.

Written language is planned in that both writer and reader have some control over the time element involved:

> In written speech, lacking situational and expressive supports, communication must be achieved only through words and their combinations; this requires the (written) speech activity to take complicated forms--hence the use of first drafts. The evolution from the draft to the final copy reflects our mental process. Planning has an important part in written speech, even when we do not actually write out a draft. Usually we say to ourselves that we are going to write; this is also a draft, though in thought only (Vygotsky, 1962:144).

Not only do drafts enable the writer to integrate very long and complicated structures of written discourse--they also permit the writer to solicit commentaries from selected readers (e.g., editors, colleagues, peers). The planning element in writing also allows--what would be impossible in speech--interrupted composition combined with uninterrupted flow of argument.

From the reader's perspective, planning allows, at least to some degree, choice of what is to be read and how it is to be read. That is, the temporal flexibility of written language enables the reader, insofar as the social setting of reading allows, to choose whether or not he or she shall even read a text; and if the text is read, how it will be read (e.g., will it be skimmed or read carefully for details, etc.).

Exosomatic Means of Transmission

The writer must have something to write on, and with, and the writer and reader must depend (in most cases) on social processes for the distribution of written language: there is an economic aspect to reading, as well as a social aspect. The writer must have not only time and materials with which to write, he or she must also rely on intermediaries (publishers, typesetters, distributors, and sellers) to help him or her fulfill the communicative act. The reader, for his or her part, must rely on socially acquired knowledge (of what to read, and how and where to find it) and on the distributional networks that make texts available (see Waples et al., 1940:9). Given the probability that the majority of the reading that one accomplishes in one's life takes place at school or at work (see Mikulecky, et al., 1979:26-28), the social and economic determinants of the production and distribution of writing would seem to deserve a good deal of attention. For example, if there are different linguistic registers (see Halliday, et al. 1964) corresponding to different occupations or types of occupations (or for that matter, different schools, or types of schools), then it becomes important to determine if the communicative means employed in texts used in different occupations (or in the processes to gain access to those occupations) reflect different types of written language use capabilities. If this be so, it then becomes important to investigate the degree to which different use abilities are commensurable (Olson, for example, seems to suggest that commensurability will not be found: "...different means are means to different goals, not optional routes to the same goal," 1977:69). To the extent that communicative abilities (with written language) are context specific, then it becomes important for our understanding of literacy as a social phenomenon to investigate the social and economic processes which regulate the flow of social actors in and out of those contexts.

The Temporality of Text

Many of the crucial social implications of written language follow from one characteristic: the temporal flexibility of text. Written language exists over an indefinite temporal span. The consequences of this permanency have attracted a good deal of attention. For example, Jack Goody (1977) has argued that writing is the tool which has enabled us to become aware of, and scrutinize our language, and is therefore the main enabling force of rationality, logic, critical thinking, and the like (but cf. Cole and Griffin, 1980). Historians have argued that printing, which made the mass distribution of written language possible, was the agency which fostered the growth of Western science and capitalism (Eisenstein, 1979).

The focus here, however, is on much more modest implications of the permanency of text: the temporal flexibility it allows to writing and reading. In order to read efficiently, the reader must sometimes skip forward (to get some preliminary idea of what to expect), and at other times, scan backwards (e.g., he or she may not understand the text the first time, or it may be necessary to check on something previously read). (Compare this situation with that found in speech, where greater communicative redundancy may make comprehension less difficult, and where there is often the possibility of the listener asking the speaker for clarification.) The reader can set his or her own rate of reading: he or she can stop to reflect on a point, and then pick up again where he or she left off; material which is uninteresting to the reader can be skipped; the reader can monitor his or her own comprehension--the reader can pause to digest what has been read (cf. Kleiman and Schallert, 1978:141).

The reader is not tied to a speaker's rate of speech (average reading rates run higher than average speaking rates, see Rosin and Gleitman, 1977:64-65). More importantly, the reader can vary his or her rate of reading to match the difficulty of the text. Such flexibility. however, must be acquired. It has been noted, for example, that a "good" reader's eye movements will adjust (i.e., the size of the movements will change) to varying degrees of difficulty in the text (that is, to the extent the reader is having difficulties with the text). On the other hand, the poor reader seems unable to vary eye movement patterns to take account either of ease or difficulty in the text (see, e.g., Kolers, 1976. Note that eye movement patterns are not the causes, but the consequences of reading ability). It seems, therefore, that the permanency of text offers opportunities for efficient reading which are not utilized by all readers. As Cole and Griffin note: "...the existence of a particular technology does not mean that the technology will be exploited in the manner that we discover, post hoc..." (1980:361).

The Relationship of Writer to Reader

The writer may or may not have access to his or her audience. If there is access, it is almost always delayed (as in letter writing). This has several consequences. The writer must make assumptions about his or her potential audience's level of knowledge: how explicit must the text be (how much redundancy must it contain) to insure proper understanding on the audience's part? The writer has no immediate "feedback" (if any at all). A writer cannot explain him- or herself if the audience fails to understand--he or she may never become aware of this failure. In many instances (e.g., in the school), the use of the text is dependent on intermediaries (e.g., teachers) who must, usually through spoken language, supply the knowledge and redundancies that are missing in the text--and, of course, this process in turn depends upon how well the intermediary has understood the text. A corollary of this is that the writer may select his or her audience in the same sense that his or her text requires a certain amount of audience knowledge in order to be understood (professional writings are a good example of this).

The writer may also restrict his or her audience by simply limiting physical access to his or her writings. This can be observed, for example, in the case of standardized tests where the author can specify a very rigid context for the use of the text.

In cases where the writer has no control over access to his or her writings, he or she must make more assumptions about audience knowledge--and the less the writer knows about the audience, the more likely his or her assumptions will be inaccurate (though the writer may try to avoid this by writing in as simple and general a style as possible--thus, the frequently heard complaints about the blandness and predictability of many mass-produced texts. See Merry, 1979.)

There are further constraints. Since the writer is separated from the reader in time and in space (in most contexts), he or she has no way to monitor the effect of the writing on the reader. The situation is inflexible. The writer does not even know whether or not the text will be read. Insofar as a writer can influence or predict the social situation in which his or her text is to be used, he or she can count on social redundancies to aid in the explication of the text. The writer of a textbook, for example, can predict that his or her writing will be used in a school setting; and, therefore, that the potential readers will supposedly bring with them to the reading task a certain set of attitudes and motivations (or that they will be penalized if they do not). This latter factor is reinforced even more by the use of "instructor's editions" and introductions to student editions--such devices might be regarded as sociolinguistic redundancies of written language. Not only does the writer's prior knowledge of, or control over, the social setting in which his or her text will be read influence the way in which he or she writes the book; it also influences the type of information the readers will try to get out the book.

Lacking (in most cases) access to the audience, the writer has no way of knowing the criteria on the basis of which his or her writing will be judged, or the manner in which it will be used. To return once again to the instance of textbooks, it may be the case that there are two separate audiences which will be exposed to the text: the teachers, who will select which books to use; and the students, who will be required to read the books as a part of the schooling process. In such a case, the writer may, in fact, be writing for one group, the teachers--the group which must select among the alternative texts available. It may be that insofar as textbook writers write for students, they do so by writing for those teachers who share their conceptualization of the students. Thus, textbook writers may be able to predict the teachers' responses to their books by knowing something about the way in which teachers are educated--or it may be that the people who train teachers are the same people who write the textbooks.

The separation of reader and writer described above is seen by David Olson as a crucial means through which the "authority" and validity of what is written is implicitly asserted:

> Written texts. among other things, are devices which separate speech from speaker, and that separation in itself may make the words impersonal, objective, and above criticism. When the lan-

> guage originates elsewhere than in the personal whim and limited experience of the speaker--rather, in the textbook which the parent or teacher consults--the language is assumed to have great authority...it is the role of books in our culture that makes them an ultimate authority in matters of dispute (Olson, 1980:104).

The authoritative nature of text is most pronounced when the reader is excluded from what Olson calls the "peer-groups" (Ibid:105) who actively engage in the production and criticism of such texts, and when the subject matter of the texts is beyond the everyday life experiences of the readers.

Situational Aspects of Reading

With the exception, perhaps, of advertisements and certain uses of illustrations (which might be considered attempts at "phatic communion") written language establishes a "meta-frame": that information is to be obtained from that which is written. However, it is the reader who must determine what, if any, information is to be derived.

External influences may pressure a person to read a text (say, a student who must take a test on a certain text), but unlike the speech situation, the reader cannot offend the writer by not reading. The text does not exhibit deference or understanding; it does not listen; it does not argue or sympathize (at least, not in the sense in which these terms are used to describe spoken language). The point is simply that the social factors which structure speech situations are absent, or at the least, fundamentally transformed. in reading situations. In face-to-face interaction, speakers may draw on a variety of information sources: they have direct access to the setting in which the interaction takes place; they have direct access to other participants in the interaction--their demeanor, speech styles, and social positions; they can make inferences about other participants' attitudes and opinions; they have access to other participants' purposes; they can infer the tone or mood of the interaction--indeed, they have some control over this. All of these factors are absent in written language.

Within the reading situation, the reader has no appeal if he or she finds that the text assumes more knowledge than he or she in fact possesses. The reader cannot ask the writer for clarification. The writer not only controls the level of prior knowledge required for understanding the text, he or she also controls the social meta-communication that can be communicated through text. (Some types of information are socially specific--phrases, expressions, syntactic conventions, or subject matter. Such stylistic conventions send messages to the reader to which he or she is unable to retaliate against with sarcasm, ridicule, and so on. The reader may, of course, disattend--if he or she can afford to.)

Reading is an active behavior. The reader must approach the text with certain expectations if information is to be derived from it (either on the basis of "text-based" or "schema-based" inferences; see Frederiksen, 1977). These expectations will, in large part, determine how the text is read. The text may be skimmed for topics or items of interest, or it may be read closely with attention for details. It may be read in relation to some problem or task that the reader has been given, or it may be read merely for pleasure. The reader must possess flexibility to adapt his or her reading to fit the text. The text is not alterable to the reader's desires.

The Functional Specificity of Written Language

Aspects of written language already reviewed--its temporal flexibility, the separation of reader and writer, and so on--serve to make written language a highly-marked means of communication. Written language is available for close scrutiny by readers and great formal elaboration by writers. More and more in the modern world, written language is used not as a simply unmarked means of communication, but rather as a functionally-specific means of doing something (its illocutionary force becomes its most important component). Mikulecky et al. (1979:26-28) suggest that somewhere around half of all reading is done for job-related purposes, while other surveys suggest that much of the time spent in non-job-related reading may represent the reading of newspapers, magazines, and the like (see, e g., McEvoy and Vincent, 1980). (Data on the types of reading done in various contexts is not available.) It becomes plausible to suggest, then, that the communicative uses to which written language is put become increasingly linked to situations of context (specifically job and school contexts) in which there are highly specific norms of use. It becomes possible to think of illiteracy as a function of the number and importance of the social situations in which written language is considered the only valid means of communication. Those same aspects of writing and printing that Goody and Eisenstein saw as causal forces in the rise of bureaucratic organizations have given written language a prime position in the conduct of modern life. More and more situations are created in which a knowledge of written language (that is, certain communicative abilities entailing the use of written language) is a necessity.

Normative attitudes toward writing are powerful and pervasive in almost all contexts. However, there is no reason to believe that the norms of use extend beyond a given situation. Socially significant examples of unmarked written language contexts are rare. Instead, written language is highly marked and the subject of great scrutiny When we say that someone can "speak," we implicitly mean that he or she can use spoken language in the types of situations in which he or she finds him/herself in everyday life. Yet, while I am generally regarded as a competent speaker of English, there is little question that I would be lost "playing the dozens" or addressing a court of law--for these are highly marked situations with elaborate rules of use learned through a (sometimes quite long) apprenticeship. A similar distinction can be made with regard to written language, except that the majority of written language situations are highly-marked "performance" situations defined with a high degree of rigidity. It is not simply a matter of "understanding" a text in some absolute, context-independent sense; it is a matter of understanding the text in the way required by the situation in which the text is used. There is no "skill" that, once learned, makes a person literate: it is always a matter of learning to read (and write) in the manner required by the situations in which one finds oneself in everyday life. This should not be taken as a plea for a more restricted conception of written language instruction geared toward producing a worker more efficiently molded into the shape required by the division of labor. Rather, it is a plea that adult reading instruction take into account the social position of the adult learner and make reading tasks in the school relevant to the learner's life outside the school. In this fashion, it may become possible not only to overcome the authoritative bias of textbooks produced by the separation of reader and writer (according to Olson), but at the same time to make the activity of reading seem useful and important to the reader. Once reading comes to be seen as a useful tool for gaining knowledge of one's immediate environment, the chances seem improved that reading--critical reading--will be used as a means of learning about other aspects of one's environment (this also seems to be the essence of Freire's position).

REFERENCES

Aron, Helen. "A Community College Reading and Study Skills Program: What Is It, What Does It Do?" Journal of Reading, 1978, 22, 231-235.

Barr, R. and Dreeban, R. "Instruction in Classrooms," in REVIEW OF RESEARCH IN EDUCATION 5 1977. Edited by Lee S. Shulman Itasca, Il.: F. E. Peacock Publishers, 1978.

Bauman, R. and Sherzer, J. "The Ethnography of Speaking," in ANNUAL REVIEW OF ANTHROPOLOGY, Vol. 4, 1975, edited by B. Siegel, A. Beals, and S. Tyler. Palo Alto, Calif.: Annual Reviews Inc. 1975.

Beaugrande, R. de. TEXT, DISCOURSE, AND PROCESS. Norwood, N.J.: Ablex, 1980.

Beaugrande, R. de. "Design Criteria for Process Models of Reading " READING RESEARCH QUARTERLY. 1981, 16 (2): 261-315.

Bloom, B. S. "Individual Differences in School Achievement: A Vanishing Point?" Education at Chicago, 1971, 1: 4-14.

Bolinger, D. L. "Visual Morphemes," LANGUAGE: 333-340, 1946.

Cole, M. and Griffin, P. "Cultural Amplifiers Reconsidered," in THE SOCIAL FOUNDATIONS OF LANGUAGE AND THOUGHT, edited by D. R. Olson. New York: W. W. Norton & Co., 1980.

Cross, K. P. ACCENT ON LEARNING. San Francisco: Jossey-Bass, 1976.

Crystal, D. LINGUISTICS. Harmondsworth: Penguin Books, 1971.

Eisenstein, E. L. THE PRINTING PRESS AS AN AGENT OF CHANGE: COMMUNICATIONS AND CULTURAL TRANSFORMATIONS IN EARLY MODERN EUROPE, VOL. I. Cambridge: Cambridge U. P., 1979.

Educational Developmental Laboratories. EDL WORD CLUES. New York: EDL/McGraw-Hill, 1975.

Feinstein, George W. PROGRAMMED COLLEGE VOCABULARY 3600. Englewood Cliffs, N. J.: Prentice-Hill, 1979.

Foster, Anne R. "Reading in the California Community College," College Student Journal. 1979, 13: 77-81.

Frederiksen, C. H. "Structure and Process in Discourse Production and Comprehension," in COGNITIVE PROCESSES IN COMPREHENSION, edited by P. Carpenter and M. Just. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1977.

Gilmore, Michael T., Sack, Allan, Yourman, Jack. 88 PASSAGES TO DEVELOP READING COMPREHENSION. New York: College Skills Center, 1979.

Goody, J. THE DOMESTICATION OF THE SAVAGE MIND. London: Cambridge U. P., 1977.

Gumperz, J. J. "Sociocultural Knowledge in Conversational Inference," in LANGUAGE AND ANTHROPOLOGY, edited by M. Saville-Troike, GURT 1977. Washington, D. C.: Georgetown U. P., 1977.

Halliday, M. A. K., McIntosh, A., and Strevens, P. THE LINGUISTIC SCIENCES AND LANGUAGE TEACHING. Bloomington: Indiana U. P., 1964.

Hiatt, Michael R. and Kilty, Ted K. "Characteristics of Reading Programs in Michigan Community and Junior Colleges," *Reading Horizons*, 1980, *20*: 224-228.

Hymes, Dell FOUNDATIONS IN SOCIOLINGUISTICS: AN ETHNOGRAPHIC APPROACH. Philadelphia: U. of Pennsylvania Press, 1974.

Kleiman, G. and Schallert, D. "Some Things the Reader Needs to Know That the Listener Doesn't," in READING: DISCIPLINED INQUIRY IN PROCESS AND PRACTICE, edited by P. D. Pearson and J. Hansen. Clemson, S. C.: The National Reading Conference, 1978.

Kolers, P. "Buswell's Discoveries," in EYE MOVEMENTS AND PSYCHOLOGICAL PROCESSES, edited by R. Monty and J. Senders. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1976.

Kurth, Ruth Justine. "A Comparison of Small Group and Individualized Instruction in Junior College Remedial Reading Programs," in READING RESEARCH: STUDIES AND APPLICATIONS. TWENTYEIGHTH YEARBOOK OF THE NATIONAL READING CONFERENCE, edited by Michael L. Kamil & Alden J. Moe. 1979, pp. 174-176.

Lavin, David E., Alba, Richard, and Silberstein, R. RIGHT VERSUS PRIVILEGE: THE OPEN-ADMISSIONS EXPERIMENT AT THE CITY UNIVERSITY OF NEW YORK. New York: The Free Press, 1981.

McEvoy, George F. and Vincent, Cynthia S. "Who Reads and Why?" *Journal of Communication* 1980, *30*: 134-140.

Merry, Bruce. "The Programming of Best-Seller Elements into Popular Narration: Richard Bach's *Jonathan Livingston Seagull*, and Segal's *Love Story*," in A SEMIOTIC LANDSCAPE, edited by S. Chatman, U. Eco, and J-M Klinkenberg. The Hague: Mouton, 1979.

Mikulecky, L., Shanklin, N., and Caverly, D. ADULT READING HABITS, ATTITUDES, AND MOTIVATIONS· A CROSS-SECTIONAL STUDY. Monographs in Teaching and Learning, No. 2, June, 1979. Indiana University.

Olson, David R. "The Languages of Instruction· The Literate Bias of Schooling," in SCHOOLING AND THE ACQUISITION OF KNOWLEDGE, edited by R. C. Anderson, R. J. Spiro and W. E. Montague. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1977.

Olson, David R. "Some Social Aspects of Meaning in Oral and Written Language," in THE SOCIAL FOUNDATIONS OF LANGUAGE AND THOUGHT, edited by David R. Olson. New York: W. W. Norton & Co., 1980.

Roueche, J. and Snow, J. OVERCOMING LEARNING PROBLEMS. San Francisco: Jossey-Bass, 1977.

Rozin, P. and Gleitman, L. "The Structure and Acquisition of Reading II: The Reading Process and the Acquisition of the Alphabetic Principle," in TOWARDS A PSYCHOLOGY OF READING, edited by A. Reber and D. Scarborough, 1977.

Rubin, A. "A Taxonomy of Language Experiences," in READING: DISCIPLINED INQUIRY IN PROCESS AND PRACTICE, edited by P. D. Pearson and J. Hansen. Clemson, S. C.: The National Reading Conference, 1978.

Rudd, Josephine. WORD ATTACK MANUAL. Ed. Pub. Serv., 1979.

Sack. Allan, and Yourman, Jack (eds.) THE SACK-YOURMAN DEVEOPMENTAL SPEED READING COURSE. New York: College Skills Center, 1965.

Sapir, E. LANGUAGE. New York: Harcourt, Brace and Co., 1949.

Schank, R. C. and Abelson, R. P. SCRIPTS, PLANS, GOALS AND UNDERSTANDING: AN INQUIRY INTO HUMAN KNOWLEDGE STRUCTURES. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1977.

Tannen, D. "What's in a Frame?" in NEW DIRECTIONS IN DISCOURSE PROCESSING, edited by R. Freedle. Norwood, N. J.: Ablex, 1979.

Vygotsky, L. S. THOUGHT AND LANGUAGE, edited and translated by E. Hanfmann and G. Vakar, Cambridge, Mass.: MIT Press, 1962.

Waples, D. and others. WHAT READING DOES TO PEOPLE. Chicago: U. of Chicago Press, 1940.

Widdowson, H. G. TEACHING LANGUAGE AS COMMUNICATION. Oxford University Press, 1978.

CHAPTER V

ASSESSMENT AND TEACHING OF MATH SKILLS

Sources of Data

This section reports on a study of two basic math courses at one research site and one basic math course at another. Approximately 35 class sessions were observed at the initial site and 10 at the latter over the period of one spring semester in the classrooms of three instructors (there were a total of four or five math instructors involved in the basic math in any one semester). Each instructor was interviewed on tape, at least once; there were other informal conversations before and after classes on several occasions. Fifteen students from the initial site were interviewed (representing one-half of each class) and three from the latter class (representing one-third of that class); these interviews were taped although there were students who involved the researchers in informal discussions before, during, and after classes (therefore, a total greater than 75% of the students in each class had been involved in this research). The assessment procedures were observed on two occasions prior to one fall semester and once prior to the spring semester during which the study was to take place. In addition, there were interviews with the chairmen of the various departments housing the basic math courses on both campuses, as well as three other math instructors at the initial site (two of whom had previously taught the basic math course and one of whom taught an applied math course); in addition, one observation was conducted of a meeting between math tutors and math and developmental instructors.

Introduction: Math Programs in the Community College

> In mathematics, the 'how' of remedial instruction has not lost its importance, but it is preceded by several other questions: what should be taught, to whom, and why (Hecht, Akst, in Trillin, 1980: 208).

Students are entering community colleges with unconscionably poor math skills; "...the dimensions of the problems are cause for the greatest concern" (Ibid.: 209).

> A 1978 survey of two-year colleges conducted by the American Mathematic Society found that 44 percent of all math enrollments were in arithmetic or high school algebra. In mandated proficiency tests administered to high school students or entering college freshmen, it has been common for between 30 and 50 percent of all students to fail in mathematics... (Ibid.).

The variables that contribute to these test results make for fascinating discussion -- perhaps students are allowed to drop behind too easily early on and simply never catch up, or they are unwilling to make

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This chapter was prepared by Suanne Roueche and Carol Rubio.

the effort and spend the time necessary to get a firm grasp of the mathematical concepts, or they simply do not get the reinforcement outside of the classroom ("Mathematics...is very much a 'school' subject..." Ibid.), or they do not read well enough to handle the content (instructions, explanations) (Bankston, 1975; Kogelman and Warren, 1978; Taschow, 1970), or they do not understand the relevance of "doing math" to anything else (Wirtz, 1977; Zacharias and Lazarus, 1977; Braunfeld, 1977; Schwartz, 1981; Mink, 1977), or they had unpleasant classroom experiences and/or early failures with the content that have produced a math anxiety that is debilitating in the strongest sense of the word (Daniel, 1978; Betz, 1978; Kogelman and Warren, 1978; Lazarus, 1974; Tobias, 1976).

However, while the possible problems are interesting subjects, community colleges must be about their solutions. And the course most in the forefront, most in the position (dilemma) of having to serve the student who brings his poor skills, poor motivation, high math anxiety to the college is the basic math course; both the literature and interviews with curriculum developers record that basic math must serve the developmental student and the student who needs only one area of remediation. That combination makes basic math one of the fastest-growing curriculum areas in two and four-year institutions. It is in an uncomfortable position of having to be all things to all people.

Students entering community colleges do not have singular goals that must be met in developmental math courses; institutions into the planning for these populations must consider the foci and the objectives that students bring with them, as well as the requirements that their academic choices will put upon them -- curriculum must be planned around the student who plans to take higher level math courses, the student who plans to enter a specialized academic, technical or vocational area that will require specific math background, the student who needs to achieve a functional level of math -- survival in the everyday world -- and the student who has a specific credentialing need (e.g., passing the GED, working toward a job certification test, and so forth). In the larger sense, without some knowledge about what students can do upon entering the college, any planning is handicapped.

Institutional approaches to offering developmental math services range from basic math courses that begin with simple addition and subtraction of whole numbers to content-specific math applications -- e.g., math for nursing -- to tutoring laboratories where individual help is available from tutors who may or may not have been trained to tutor in specific content areas and/or offer instruction in performing the most basic mathematical computations. Some basic math courses are housed entirely in developmental programs, some in math departments; in our research, they appeared similarly in both programs at one site and as self-paced with modularized content units in the developmental program at another (a traditionally-structured basic math was housed in the math program at this site). There are institutions that have attempted to offer "quasi-remedial" courses that mix the remedial and college-level content in order to keep students' interest in their subject by offering a course in that content area in which they get the fundamentals necessary to tackle the content while they are tackling the content. In short, "...the sugar-coating is often no more palatable than the remedial content itself; students who are presumably enticed into learning arithmetic by the lure of statistics may end up turning their backs on both" (Hecht, Akst, in Trillin, 1980: 221).

Many colleges are attempting complex efforts to meet a diversity of student needs (Roueche and Snow, 1977; Roueche and Roueche, 1977; Lavin, Alba, Silberstein, 1981); and while they have several common strengths, they have custom-tailored their courses, by and large, to their populations in the face of controversies among mathematicians themselves about the content of basic courses, about the basic (real) needs of individuals enrolling for basic mathematics, about the relevance of many math courses to anything other than highly specific and higher level mathematical computations, about whether to teach the theory or the application of math and so on, it seems most appropriate to look beyond the controversies and at the reality.

A survey of literature on the basic math skills provides one glaring fact: there is no agreement upon the group of skills, the most basic math knowledge without which individuals cannot survive.

> If interpreted as the minimum needed to survive in society today, the list of skills should be extremely short. The skills required to be an astute consumer constitute a narrow, but more demanding list. Moreover, the mathematical abilities required to be an effective citizen, able to comprehend our social and technological environment, constitute a curriculum far deeper and broader than most extant basic skills lists (Fey, 1977: 51).

The Adult Performance Level Study, conducted at the University of Texas at Austin, concluded that "some 34.7 million adult Americans function with difficulty and an additional 39 million are functional, (but not proficient) in coping with basic requirements that are related to Consumer Economics" (Northcutt, 1975: 6). In addition, it found:

> A greater proportion of people is unable to perform basic computations than the other skills. Approximately one-third of the population, or 39 million adults, functions with difficulty, and a little over one-fourth, or 29.5 million adults, is functional but not proficient in task performance on items requiring mathematical manipulation (Ibid.).

The APL study, as did this project, considered functional literacy to be situation-specific -- the ability to survive reasonably well was dependent upon what one could do in a given environment, what the demands of that immediate environment were. The instructors at the research sites echoed that specificity in their answers to interview questions about basic mathematical literacy:

> As far as basic math skills goes, if you want a literacy level, it's the level on which they (students) can successfully deal with the world and its mathematical problems on a very elementary, everyday scale. That would be literacy for basic math skills....(interview with math instructor).

Selection of Courses

The project staff elected to study two developmental math courses at one research site and one developmental math course at another (within one district site). At the first site, one of the two basic courses is housed in the developmental program (hereafter called Math A), and the other is housed in the math department (hereafter called Math B). At the second site, the developmental math course is housed in the developmental area (hereafter called Math C). Math A and B provide a different instructional approach (lecture/discussion) than does Math C (self-paced), and the content varies by site. However, as the second site did not receive the intense study of the first, it is treated only superficially following the Math A and B descriptions. But they all were significant to this study as they represented two institutions' attempts to provide basic math skills for diverse student populations and as they are courses with clear literacy demands: they are text-bound.

Student Population

Interesting enrollment trends existed in Math A and Math B. Data from student questionnaires indicate five strong trends: (15 students in Math B, one section; 35 students from three sections of Math A; two day classes, one evening class)

1. Math A serves nearly 68% women during the day; the trend is reversed in the evening. (It is important here to note that although two Math A's and two Math B's are offered during the day, only one Math A and no Math B's are offered at this site in the evening. It is conceivable that the lack of evening offerings -- in proportion to the daytime offerings -- significantly affects the following trends.) Math B is more evenly divided between males and females (8 males, 7 females).
2. There is a significant number of students in Math A who are attending this college for the first time; Math B students have an average of three semesters of college behind them.
3. More than 75% of the students state that they intend to get some degree from this college.
4. There is a high rate of day students who have or are presently taking other developmental courses (reading and writing) in Math A; fewer co-enrolled or previously-enrolled developmental students were in Math B.
5. Enrollment in the Math A sections during the day include a higher percentage of minority enrollment than is reflected in the general college enrollment.

There is a general tendency that students (women, minorities) who are most unsure of their ability to do well in college courses choose enrollment into a course (Math A) that in the catalog and in advising session promises to offer the most basic, individualized approach to math content and instruction. In addition, they are typically students who are entering college for the first time, or at least very recently, and who have the least amount of experience in that environment on which to base some opinions about their chances of success -- as seen in trends 2 and 4. There is no indication that the advising process "tracks" minorities into these developmental courses; however, the past experience with less successful negotiations of academic subject matter, including math, could account for the higher minority enrollment. Students with degree aspirations had some hazy ideas about math requirements in their majors outside of the catalog statements. No declaration of major and class enrollment assume student perceptions about undefined need for math skill development.

Program Structure

The Math A and Math B courses are traditional lecture mode of instruction, interspersed with questions by the instructor to the general class, generally calling for some response by undesignated students. The same test is used in both classes; the timetable followed by both instructors indicated that the pace and content covered was similar in both classrooms. Expanded discussions appear in the separate overviews.

Class attendance, while a written requirement, is subject to negotiation and/or student assessment of need. In Math C, a self-paced instructional approach, attendance is required; students select the number of credits they wish to receive by choosing modules (for completion with the length of one semester) which are attached to number of class hours.

Pre-assessment

> ...we should not be diluting the content of university parallel courses in order to improve success rates but rather we ought to be working more carefully on initial placement....(interview with math instructor).

The assessment of math skills at site of Math A and B was much less elaborate than the assessments for either writing or reading. The students, upon entering the orientation session (for new students, prior to registration), were given an orientation packet, and in that packet was included a card containing questions that would direct the student toward creating a math profile (self-assessment). The student could tentatively place himself by completing questions about the last math course taken and the length of time since it was completed. He must then see a math advisor and get his card stamped for approval of any math selections that he has made.

> The mathematics department has been exceptionally active in student advising. We are the only group of faculty in the college to require that before a student can sign up for any of our courses, the student must take the course approved by a math faculty member. We have placed that burden on ourselves because we feel it's the best way to get students accurate advice about mathematics courses (interview with math instructor).

The college's general policy about advising is that a student must go to his major advisor for permission (sign-off) for his course selection; the math faculty felt that this one adviser could not have the knowledge necessary to clearly evaluate the student's competencies in all areas in which he is to enroll, and they sought to have more control over that student's choices -- to give better advice than would someone outside the math area.

The math choice card is presented to the advisor. It essentially places the student, using two factors. The first is identification of the last math course the student took and the second is how long ago the student took it.

> We use the last formal math course as some general indicator of the student's current knowledge level. It's very rare for someone to have a knowledge of mathematics beyond the level of their last formal course. Most students learn their mathematics in school. So if you know that a student stopped after one year of high school algebra, you have a pretty good indicator of how much math a student once upon a time knew. The next question is how long ago did the student have it? If I had a student who finished one year of high school algebra two months ago, I'm only to assume that the student probably recalls most of that. If, on the other hand, the student had that one year of high school algebra eighteen months ago, five years ago or fifteen years ago, I'm not willing to assume that that is fresh knowledge (interview with math instructor).

If the math faculty member does not agree that the student should be taking the courses that he has selected for himself, he urges the student -- based upon his own self-report data -- to make a selection (higher or lower) that would be more suitable. If the student does not agree that the advice should be taken, the faculty member suggests that taking a short placement test would be in order.

The test is taken on the spot and requires that the student solve ten problems that represent the prerequisite skills of the course in question, not the skills to be taught in the course. In order to "pass" the test, the student has to solve six or seven of the ten problems correctly. (There were inconsistent reports among math instructors as to whether the number of incorrect problems or the type of incorrect problems was the major criteria for placement.) There were no explicit criteria for deciding which students should be administered the test -- beyond the math counselor's concern about past math experiences as indicated on this math card.

The math assessment was designed by the faculty of the math department, and it differs strikingly from the writing and reading assessments in at least three ways. First, unlike the other assessments, the math tests are designed to test specific skills in relation to the course content of specific courses (e.g., the students are tested for the skills that are developed in the course preceding the course for which they wish to enroll). The other tests (reading and writing) only made a distinction between students needing developmental work and students not needing developmental courses. Second, the "skills" assessed on the math test were much more defined than the reading and writing "skills" supposedly assessed: the student could either add, subtract, graph a linear equation and the like, or he could not. There were no "trick" problems, and the numerical values were all small and simple.

> We've found that this system works pretty well. It avoids all of the practical and perhaps emotionally misdirecting consequences of a massive sort of testing program (interview with math instructor).

The math faculty determined that to obligate every student who wishes to take a math course take a placement test would be pointless, cumbersome and demeaning, as well as short-sighted. Because of the numbers of students who actually enter the orientation process -- of all students enrolling in math courses -- the chances of testing everyone are slim; because any test that evaluates students' levels of abilities must be sequenced beginning with the lowest levels providing some coninuum of abilities/skills, the better students must plow through numerous simpler problems in order to reach the problems with which they have trouble. Yet if there were fewer simpler problems, the poorer students would quickly be discouraged; because test anxieties combined with time pressures (testing environment and so forth) may negatively affect a true evaluation of the student's abilities, conversations -- in conjunction with a brief, targeted test -- might provide the best evaluation.

> ...since we have a lot of all those students, students with such a variety of backgrounds...their true ability level doesn't always display itself on tests; but their ability levels may display themselves more accurately actually, in having a conversation...about...previous mathematics education, training of the areas, intentions, ability to study, how well a student does and how rapidly a student recalls materials will frequently be determined by how much time the student has to devote to it...All of these things actually are crucial on placement in a course (interview with math instructor).

While the strengths of the "conversational approach" are clear, the drawbacks are, too. At institutions relying heavily on part-time faculty, the orientation and registration schedules must put more pressure on the full-time faculty members to carry the advising load. Hence, as a math instructor noted:

> Actually, it's down to more personal conversations with students. With 2700 math students, even that is hard to implement especially since we only have six full-time faculty members.

(There are further discussions about the consequences of the full-time/part-time faculty dilemma in other sections.)

Observations of the orientation advising session indicated that only a small proportion of students registering for math were tested during the sessions observed (about one in seven). Although the students had already been assessed for their reading and writing skills by the time they arrived at the math station, the math counselors rarely checked either of these scores as a possible determination as to whether or not the student was capable of reading the math text selected for the math course. Finally, the counseling on the basis of the tests was often disregarded by the students. They would often "make excuses" or give rationales for their poor performance, and as all counseling is non-binding and as course registration is not restricted to any student admitted into the college, students generally took the courses they desired, regardless of the recommendations they had received.

Assessment continues in a more general sense at registration. The student must go to the math table to have his card stamped for approval; a math faculty member, in effect, will at least talk to -- however briefly -- every registrant. Assessment at this point is typically interpersonal; an instructor questions the student about his last math course -- when he took it and where. He continues the questions by asking the name of the instructor "...just as a double check if the student is giving me a fake story" (interview with math instructor). If that instructor is satisfied, the card is stamped; if he is not, a dialogue begins that seeks to persuade the student to make another selection or at least defend his choice.

> If I had any doubt about whether the student is giving a straight story, I would look the student in the eye and remind him that if he's not telling me the facts accurately, he's the only one that is going to suffer. In the long run, there's no skin off my nose; but he's the one who is going to get in a course that he's not prepared for. In the light of that observation, most students are honest (interview with math instructor).

While many of the students do not attempt to deceive instructors about the last course they had, they do tend to exaggerate the amount of material they remember from it, according to one instructor. If the faculty-student conversation concludes with no resolution of the instructor's concerns about the student's choice(s), it is recommended that the student take a brief pre-test.

> Usually, the result of the pre-test is that the student himself will come back and say: 'You're right. I'm not ready for that course. I can't do these problems.' At that point, I don't have to argue with the student. The pre-test allows the student to convince himself (interview with math instructor).

The Math B instructor does not give a pre-test to the class.

> But for a subject such as basic math skills, it would be difficult for me to assess their present skills. Like I suspect there is at least one or two students in there who are real shaky even now.

A pre-test is given in Math A on the first day of class. Addition, subtraction, multiplication, division of whole numbers, of whole numbers and fractions, of decimals, and finding percentages are included on the test. The time allotted for completing the test is 10-15 minutes; answers are put on the board, and students check their own work. The instructor says to the class:

> Just sorta skip around and see how you're doing since I just wanted to give you a feeling for this. If you got 9 or 10 right, chances are you're in the wrong class. However, there is more to math than just getting the problem right; it's knowing why you're getting the problem right.

While there are other efforts to coordinate Math A and B -- content, text -- there has been no decision to make this a requirement in the Math B, also. But as in orientation and registration, the student must volunteer to make a change.

Information Brokering -- Counseling and Advising

Math A is described as a more personalized approach to learning mathematics; students are told that there is more opportunity to get individualized help, that the classes are smaller. The Math B, however, is described as a quick review -- a pre-algebra class -- and not as personalized as Math A. About Math B, an instructor noted:

> So, we say to students that if you want a more logical sort of efficient one-semester review of arithmetic skills...and begin to get into algebra just a little bit in one semester...do that efficiently with the teacher up there slapping the material on the board, you have thirty other students around and you don't feel like you need more one-on-one work, then take the course in the math department. It's going to be a bigger class, less individual attention but perhaps more of an order of efficiency and getting through it all. I have made that statement in orientation sessions; I can't swear I've made it in every one. I know I've made that statement to students on an individual basis when they've asked me to distinguish between the courses. On the other hand, since the class (Math A) is smaller -- fifteen students -- there's probably going to be more opportunity for the instructor to stop and work one-on-one with students. And I think in a sense, that serves two different needs. There are some students who all they need is sort of the more rapid, let's get through with review of some of these things they had in junior high school and got a little rusty. It's not so much remedial development; it's just sort of a refresher. (In the other math course) I could see concentrating a little more slowly, having more flexibility, perhaps allowing the student to extend the course over two semesters, not emphasizing as much that you want to finish this material in sixteen weeks and move on to the next course.

But as a Math A instructor noted:

> In fact, to tell the truth, I don't even know if they sign up for one, if they even know the other one exists. I think that happens a lot -- people think they have to take a math course or arithmetic, and they must think

> 'Oh, math department', and they sign up for it (Math B). I think most of the students who see me at orientation or somehow find out about... sign up....

While it is important to note that students do get these explanations, it is imperative that we refer the reader to the sections on advising, particularly orientation and data that indicate that only 30 percent of all new in-coming students go to the orientation sessions. Data from the project's student surveys provided scant and indirect information about attendance at orientation; however, interviews with students in Math A and Math B classes (15) produced only one student from each group (2) who definitely had attended orientation sessions; furthermore, one interview with a math chairman included.

> ...so many of our students walk in off the street at registration itself. They do not go through a formal orientation program. A very small percentage of our students actually go through a formal new student orientation program.

Most of the students interviewed mentioned that they had selected the courses from the catalog, with the Math A students frequently mentioning that they had always had trouble with math, or had been out of school for a long time and needed to ease into everything slowly, or that they were just "dumb" in math. The Math B students, however, often mentioned that a counselor or math advisor told them that the course would be a quick review, also that all they thought they needed to do was to "just bring back (my) memory," and thought first of checking the catalog for a course in the math department that would help them do that.

MATH A

Rationale for the Course

The course is described in the catalog as

> An introductory course with emphasis on strengthening and reviewing fundamental math operations; whole numbers, fractions, decimals, percents, ratios, etc. individualized and group instruction.

According to the counseling/advising information about this course, it is a review that provides for more individual attention than does its counterpart in the math department. On an institutional level, it fulfills the commitment to offer similar courses in the same departments on each campus. As the developmental area provided tutoring services and other basic courses (reading, writing, study skills), it was decided to offer such a math course. With the decision to hire a full-time math instructor whose primary responsibility would be in the developmental area -- teaching the basic math courses and directing the math tutoring labs -- the institution was meeting what had been preceived of as a responsibility to students requiring a different approach to the teaching of the basic math skills.

Math A is a basic skills math course, housed in the developmental department. To the questions: In order for a person to be functionally literate in mathematics, what basic skills do they have to know? and Are they covered in the math skills class....?, the instructor replied:

> I think that a student with this course will be functionally literate to live in society. Basically, if you're in society about the only thing that you really need to understand, I feel, is the basic operations of numbers, operations of fractions, decimals, and percents and really how to apply those, which the application of those isn't covered as extensively as it could be in this course. I don't perceive this course's function, though, to make adults functionally literate. I guess I should. But I really view it more as prerequisite course for elementary algebra. I guess part of that thing is that deep down inside, I'm an academic person, and I enjoy the concept of people furthering their education, and what this class is really doing is it's making them functionally literate for college. Because, for example, you do not need to know algebra to live your day-to-day life in an intelligent manner. I just don't feel like you have to. But I feel that algebra, for any academic subject, is a basic. And that includes economics, and almost anything that has to do with numbers.

On the first day of this course, it was announced that the goal of the class was to prepare the students for elementary algebra, also to prepare them for fractions, decimals and percents as well as provide interest in math and if that was what they were interested in, and pretest indicated they should be there, they were in the right class. There is no notation in the catalog about elementary algebra; there is no pre-assessment of student educational goals or courses in which they are currently enrolled.

The Text

The text was chosen by the math department for use in its basic math course; this instructor chose to use it also although it was not the text used the previous semester in the basic math course. He noted that he had used the text at another community college and that he also recognized the importance of using the same text that was being used in the math department. He liked the arrangement of the content and the delivery system; the text began with simple mathematics -- addition, subtraction -- and included such assignments as learning the multiplication tables, taking the students through signed numbers.

The student handout, given to students on the first class day, listed the chapters to be covered and the homework problems to be assigned -- along with the test dates -- for the semester. Eleven chapters were to be covered (possible of 12). The instructor kept to the text, to riddles (word problems) of his own production, and to mathematics vocabulary, distance rate-time word problems, and equations with variables on both sides.

Instructional Strategies

The instructor used a lecture/discussion method and noted that "...the classes (at this campus) in all disciplines, not just math...are more lecture oriented." To the question: "...what are some of the advantages and disadvantages of the two approaches?", the instructor replied:

> Well, in terms of the students, I think that it's real important that you provide students with organization, and pace, and an organization through which they can discipline themselves. And I think that students like the concreteness of having a set pace and a set syllabus... but the self-pace, you can fall behind if you don't manage your time well. And if you have a lot of other outside commitments, like students here do, I think that that's one real problem of the self-paced course. ...and I think a lot gets missed (with the self-paced method). And maybe even if I was tutoring a student, I may say this nice, interesting thing about the content, but only that one person heard it instead of ten. And so I'm sort of biased towards lecture, even when I know at the same time that one person can't sit for longer than ten or fifteen minutes without squirming. At least some people are like that. And so, it's teaching style and learning style. My teaching style is lecture. And I'm not so sure that all my students' learning styles are lecture; and consequently, I'm forcing my style on some students who may not want that. I haven't had any

> resistance. I don't know why I haven't. I may not have any resistance because students just probably walk in and say, 'The teacher's the boss,' and really don't resist. But I never heard any complaints.

After the lecture and discussion period, during which homework questions and new material had been discussed, he walked around the room and talked with each student. While this was not a daily pattern, it was a rather typical instructional strategy. Students would be working on new problems, and he would attempt to answer any individual questions that they would have at that time. There seemed to be adequate time and instructor-prodding of students to ask questions during the discussions (although there were some occasions at which students were asked to hold their questions until the explanation was complete). (The issue of time for generating questions will be discussed in a later section.)

As was mentioned earlier, the instructor placed heavy emphasis upon the text, used its content format to organize his class, and often read directly from it to highlight examples of sample problems. He sometimes worked parts of problems in his head (although not when they were concepts being taught at that moment) -- e.g., division problems -- then put the answer on the board and asked if there were any questions or said, "Now that we have the answer, we can..." Students sometimes appeared confused; in interviews they suggested that his frequent questions about "Does this sound familiar?" and "Is it coming back to you now?" (interviews with the instructor note that he considers lower-level math courses to be "review") makes them suspect that they should know what he is doing; some felt "dumb" in asking. He sometimes inserted extra steps into the solution to problems that were not included in the text's explanation or example; sometimes he left out steps that were included in the text but were omitted when he was working them at the board. But typically, problems were worked out step-by-step.

Students were never called upon directly. In fact, the instructor mentioned that he never called upon any students directly for fear of intimidating them or making them uncomfortable in the class. However, he did learn names of the students and used them to include all students in class discussion or respond to their questions. But students asked few direct questions -- typically clarification questions -- and more often asked them of each other than of the instructor (he mentioned that he encouraged this interaction). It was also an observation that the time allowed for students to formulate questions of their own was very brief -- that is, if students did not answer the question right away, the instructor answered it himself and moved on or asked another.

> Instructors should also discuss the importance of asking questions. In mathematics, it too often happens that only the best students are in a position to ask coherent questions; knowing most of the material, they can identify the small gaps. Unfortunately, remedial students in need of help are more likely to be in a state of confusion, possibly about entire blocks of material. Even if they have the courage to reveal their difficulties, they may have trouble finding the words (Hecht, Akst, in Trillin, 1980: 247).

The process repeated itself rather routinely, possibly out of concern that longer periods of silence would create discomfort among the students.

Some students commented that the language sometimes used in the lecture portion of the class was confusing; one mentioned that he wished the instructor would use "English" to make explanations. There was observation of some use of three-plus syllable words -- e.g., preliminary, premature. The "English" reference cited appears to be referring to those words used in ordinary explanations, not in the definitions of mathematical terms or the use of the mathematical terms themselves.

Homework

While homework is assigned and the instructor emphasizes the importance of completing all of the homework problems, it is not checked on a daily basis (other than as the instructor moves around the class after the lecture session); rather, several units of work will be collected at any one time. He does continue to mention that the homework will add points to their final average if it is completed, is legible, clear, and shows all work. Some students mentioned getting behind in homework frequently; another mentioned that he waited for a week or two before doing it, then completed it at one sitting (being late to class on the day the homework was due in an effort to complete it).

Attendance

While the student handout cautions against excessive absences (it is a written requirement) -- three absences make a student a likely candidate for a "withdrawal" action on the part of the instructor, the instructor noted that he includes that warning because

> ...it does let them know that if they don't show up for a couple of weeks, or at least let you know that you can drop them...that's just telling them that they should let you know. And I see nothing wrong with that. It is sort of irritating that a student misses two or three weeks and then all of a sudden shows up, and you thought they had dropped or something. And that happens very rarely...My experience was, if a student missed about three weeks, you could pretty much count on the fact that they weren't ever going to show up again, period.

He mentioned that when he drops students, he does it because they are being taught responsibility and that they should not assume that they can "get away" with such behavior. In addition, he said that he was taking attendance

> ...because it's college policy, and we have to turn roll sheets in. Attendance really doesn't interest me. I feel that they're responsible people. Or if they're not, then taking attendance isn't going to make them responsible.

Evaluation

Evaluation of student performance took two approaches: weekly quizzes (given on Mondays and returned on Wednesdays, representing 25% of the final grade, not available for re-takes or make-ups) and there were four major tests throughout the semester. There was a notation in the syllabus that only three of the tests would be averaged and would represent 50% of the final grade (given that illness or other pressing personal business could prevent the student from taking all of the tests). The final exam represented 25% of the final grade.

Tests were all taken in class; quizzes were taken at the end of the class period with allowances of from 15 to 30 minutes, depending upon the material, the length of the quiz, and the time available after the lecture/discussion period. Tests were returned with the incorrect problems completely worked, by the instructor, on the test paper. This was an instructor-initiated effort to provide weekly feedback (viewed as function of quizzes), according to the instructor.

Class Size

The instructor mentioned that he had proposed that the ceiling on class enrollment be raised from fifteen to twenty, as he felt that he was able to attend to individual students at the present level and could serve twenty and that larger groups seemed to instill more confidence in the students to ask questions and encourage more give-and-take in the class discussion; however, students seemed to prefer the smaller classes. Students in a class of seven mentioned that they liked the instructor's style, his relaxed manner, and the fact that he kept his classes small so that he could get to know the students personally -- what they really needed to know and what they already know.

Student Timetable

The course outline -- by date -- presented during the first class period was followed on or slightly ahead of schedule. The notation included on the student handout indicated that the pace of the class would be determined by the progress it made. There was no evidence, by observation, that the class was being rushed along or was moving too quickly -- at least no comments from students that they were falling behind or finding the pace too quick. (There was attrition; however, there was no established procedure whereby the instructor determined any relationship between pace and absenteeism.) However, some student interview comments suggested that their preference would be to spend more time on several units that included fractions, decimals, and word problems -- the most frequently-mentioned math difficulties.

Hiring Practices

The instructor of this developmental math course was hired by representatives of the developmental department and the chairman of the math department. The math chair noted that he was interested in having a math specialist in the developmental department who could converse with members of his own staff, who could share ideas about the improvement of the basic math courses, who could serve as an instructor of upper level math courses in the math department (although not a principal motive for hiring), and who would serve as a "math model" for students who were entering the college and needed this basic development (i.e., students would be aware that the instructor was not only teaching basic courses but teaching upper level courses as well, that he had contact with other math instructors -- hence, he would have firsthand knowledge of what students must be able to do in other math situations, and that he was a "real" math teacher).

The instructor continued this relationship, begun in the hiring process, as he collaborated with the other basic math teachers (housed in the math departments) about the text, the content, the scheduled presentation of content. He also provided support in the math advising sessions and directed students to all math courses; he provided them with the same information that the chairman made available -- that the developmental math course was more individualized (not self-paced, however) in that students had opportunities for one-to-one conversations with the instructor during the class session.

MATH B

Rationale for the Course

The course is described in the catalog as

> A course designed to develop the basic arithmetic and other mathematical skills needed before beginning a sequence of algebra courses. Content includes operations using whole numbers; fractions, decimals and percents, problem solving; reasonableness of results; estimation and approximation; measurement and geometry; tables, charts and graphs; and an introduction to algebra.

The math department supports the goal of this course as a preliminary step for students entering a series of math courses -- students who have indicated or who have chosen to accept counseling advice that they need a quick review prior to entering that series. It is evident from talking with students (more than half the students in the class), however, that their goals do not always include this math series, that often they do not know that any other basic course exists that they might take instead, that they only wished to have the opportunity to learn "simple" math again. As large numbers of these students have no declared major, the reasons for taking the course are not always major-related; students expressed hazy notions about needing math skills "sometime" or "somewhere" and just not "feeling right" about being educated until they had some better grasp of mathematical concepts.

The Text

All chapters of the text are also used in this course; the text was chosen by the math department. While the instructor noted that it is difficult for her to determine on a daily basis whether or not students have difficulty with reading (she gives no diagnostic test during the first day of class for either mathematical level of competency or reading ability), she does notice that in conferences with students she tends to discover the reading problems that they must be experiencing. However, she notes that reading the math text should not be a problem for them as

> ...they don't (even have to read it) because if they come to class every day, I simply tell them what the book is telling them, only in my way.

She continued that the prerequisite for this basic math class, if such a prerequisite were required (and there is none as "this is the bottom of the barrel, so to speak"), would be "a sixth grade reading lab...but that's about it" (interview).

Instructional Strategies

The instructor relied solely on the text; all discussion was focused upon the content, the problems in this text. The instructional mode was lecture/discussion with the instructor using an overhead projector on which problems were worked step-by-step. While the lecture pace was very brisk (the instructor spoke very rapidly), and the instructor was very task-oriented (moved through the material on schedule), the presentation was thorough. A student noted:

> ...she takes it very slow, very thorough step-by-step process. She gives you the opportunity to ask, to answer questions.

The instructor continued to remind students to show all of their work -- even in the simplest of procedures. For example, in adding a series of numbers (two digit) in the first weeks of class, the students were required to add the first two numbers, arrive at an answer, then add that answer to the next digit, and so on. Laborious, it appeared, but then those procedures were dropped when more steps were added and the problems became more complex. There was a building process that was always ongoing. The instructor continued to mention that students must "see" the relationships in what they were doing and the answers they acquired by following mathematical steps. In other words, she was making no assumptions about what the students were "thinking" they were doing while working toward the solution of the problem; she was consciously walking them through the steps.

Another student recalled the experience with a substitute in this class who did not follow this exacting procedure:

> ...I had to understand that there were certain lengths or certain steps in the problems but she would do them mathematically. She would assume we knew. I had to sit down and realize that she was making that assumption. Therefore, I had to be sure that I studied well enough that when something would arise (that I didn't understand), I would say: 'OK, here I don't understand.'

Unlike many other students who noted that they did not like to ask questions, this particular student did not assume that she shouldn't ask about the invisible, unannounced "steps" since she should have already known what they were. However, more frequently, students mentioned that they hesitated or refused to ask questions when the instructors skipped procedural steps as they presumed that the "leaps" were based upon some common knowledge that they should have known previously; to ask would have brought attention to their failure to identify or understand them and would have been embarrassing.

The same student continued:

> With a lot of mathematics teachers that I've had in the past...have a tendency to become so wrapped up in getting a certain amount of pages through that they forget about the individual students and how they're relating to it in

> (their own progress) dealing with the material. I think any particular instructor who begins to get so wrapped up -- 'We've got to get fifteen pages out today' -- they're more involved in the fifteen pages than they're involved in making sure that students understand where they are in that particular subject, why they're there and where they're going with it. It makes the difference between a good instructor and one that isn't quite as good.

The Math B instructor always took questions from the class at the beginning of every period about the homework from the previous class session. Whether or not there were many questions, she would choose several to work and question the class about the procedures for working the problems and arriving at answers. This instructor never called upon students directly -- that is, until about the middle of the semester, she never called upon a student by name to respond to a question (although she did often use their names as she responded to a question that they had asked). In interview, she noted that she assumed that students would ask questions when they needed to know something, and she continued to demonstrate that belief. After about the middle of the semester, however, she began to call upon students -- but only two or three and only those who had consistently spoken out in class and asked questions throughout the semester.

Interviews with students included responses that reflected embarrassment in asking questions (no matter how sincere the instructor seemed to be in urging students to ask them), that reflected concern about the time it took to formulate questions in their minds, that noted the time to ask the question was often past before they could get the question "together" in their minds, and that reflected a different role for students than that of asking questions. One student expressed this role assumption made about the behaviors of college students:

> Here and high school teaching, it's close to the same but not really the same. You know, they do lecture a lot, but they don't call on many people. Here if you want to answer, you do; if you don't, you don't. (In high school)...they'd call on me and ask me to answer the question. Here, they could care less cause you know it's up to you whether you want to learn or not. It's just the way they see it.

Questions thrown out to the class were typically answered by weak responses -- hardly audible or just under the breath with only the lips moving. One or two of the students did most of the responding at any audible level; others would answer on varying levels -- noticeably, the lower the response level, the more likely the answer was incorrect. However, when the more audible responses were wrong, the instructor did not call attention to the inaccuracy, but rather commented upon the possibilities they had as answers or in some way made an effort to soothe the student's feelings, moved directly into the proper solution and arrived at the answer -- never continued to ask until the right answer surfaced from among the class members.

There were incidences that occurred with enough frequency that they are worth mentioning here. Sometimes students would ask a question about the instructor's choice of numbers used in the solution of a problem -- e.g., a factoring problem. The response would be: "I chose 6 and 8." The student had chosen 4 and 12; the chosen numbers were correct in both cases. Typically, the instructor would explain to the students that both were correct and move on to explain why. Students did appear to have a difficult time in assessing their responses against the instructor's; as a result, units which included problems in which "correct" steps in problem solution were variable or involved various sets of equally "correct" number sets, created the most noticeable concern. Even when the instructor would make explanation about the possibility that different responses to the problem solution could be correct, students did not take the explanation one step further and ask why.

Students typically did not ask any "why" questions. They more frequently asked questions of clarification: "If I leave the answer in this form on the test, will it be correct?" "Will you say that again?" "What does this mean?" not "Why do we learn this?" or "What will we ever do with this?" or "Why is that answer correct and this one is not?" However, in interviews, some students mentioned that they hoped this math would be useful someday but that for the moment they did not know what to do with it or how to apply it anywhere except in the classroom.

It was noted in classroom observations that students asked more questions of each other than they asked of the instructor. Even when the instructor "taught an error" and then continued on, it was one of the more vocal students who asked about the "error"; several other students were talking among themselves about it. The instructor did say to the class: "You all were just sitting there, doing nothing, and I was just going to let you go." (It is important to note that the error was corrected and the instructor mentioned in a later conversation that she always was careful to do that). However, in the meantime, several students had included the "error" in their notes; it was not recorded as to how many returned to their notes to correct it. In addition, there were several instances in which the instructor would congratulate a student for asking a really good question and then direct him or her to answer it. Some class members appeared surprised that she did not proceed to answer it herself. Sometimes these directives were followed by an absence of student-initiated questions for several moments.

As the class began to grow smaller, toward the end of the semester, the level of interaction was greater with smaller numbers of students than with the larger classes. The quickened pace, the questions thrown out to the class, and the student responses seemed directly related -- that is, more students were involved than had been previously; the answers were audible and strong when the lecture/discussion/question pace was quick, and the group was small. The fast-paced lecture did not, however, signify rapid advancement/progression through the material; rather, the problems duplicated each other as concepts were being reinforced. Students were not allowed to dwell on any individual problem that was giving them difficulty; rather they were moved along to other samples of the same type problems that were offered over and over for practice. The instructor noted that the students should set their goal as "knowing what (she) was going to write down before (she) did it," and repetition and the use of visual imagery were her chief instructional strategies.

She encouraged students to think mathematically, to be able to "hear" the numbers and "see" them simultaneously. An example was real-world-related (an infrequent application in both classes, however) but spoke to the importance of listening to what the instructor was saying about numbers and being able to write what she was saying -- e.g., having some "feel" for the quantity that the number represented. She noted that car dealers won't typically tell you what the price of the car is and show you the price in writing at the same time, that he does not want you to get a firm grasp on how much money the car is really going to cost you. The lesson continued: in order to get the most value out of the math sessions, students must be able to listen to what the instructor was saying when she used numbers orally and be able to see them in their minds at the same time -- they must have some sense about what numbers mean, what they represent.

> They know the number I'm going to write before I write it. ...they know what the next step is going to look like before I physically write it down. They have to be mentally involved with the process before anything meaningful can take place. They can't just sit there and let that be it.

Lectures sometimes included words about which the students appeared confused -- some were mathematical terms that the instructor defined as she went: others were general vocabulary words that were not familiar to the students -- e.g., "intuitive understanding." In explanation of mathematical terms, she was careful to read the term in the text, with definition, then explained its usage and meaning again in her own words. The explanation was simple, brief; the term was pronounced several times, presumably for pronunciation practice for the class and for reinforcement of the link between the word sound and the definition just discussed.

There were infrequent references in the general lecture/discussion to any application of what the students were learning to practical everyday mathematical demands -- keeping a checkbook, making a budget, purchasing clothes or groceries, and so forth; references were made sometimes when word problems were being discussed -- "Put yourself into the problem and make it your problem" -- pretend that this is a problem you have with your budget, or your checking account, and so forth. Students noted in interviews that the terminology used to describe what the math was doing or what it was -- e.g., decimals and fractions -- was not clearly a budget problem or a checking account problem, and so on, that they could not make the connection although that was clearly what they were doing (using decimals and fractions) when they were performing these activities.

Homework

Homework, while assigned and while the instructor often said, "I require that you only do these problems," is never collected. Often students are observed copying the problems from the overhead projector as they are being worked; some appear not to have worked them previously. The instructor appears to be aware that these activities are taking place but does not mention them. The assignments were usually fifteen to thirty-five problems; there was no syllabus that announced assigned problems prior to the class period. As the instructor moved through the material, the assignments were called out; some students made notations that there were assigned problems, and others did only on occasion. The syllabus announced that students should do a "representative sample from each section covered in class, within a day or so of when the material was discussed in class." In interview, the instructor mentioned that she assumed that the students were doing the homework and would do so because they knew it would help them, that they needed to complete it.

> I told them that I would give them an assignment, the procedure is exactly like we're doing. They have an assignment that they are expected to read over, and they have certain exercises which I expect them to do. I'm not going to collect their homework; their homework is for them, and I explained to them the value of homework. What homework really does, of course, is nothing more than check your ability level at that particular time. It lets you know where you're deficient; it lets you know where you need to go back and study some more. It also lets you know that maybe the book is not giving you enough information or not explaining it well enough for you to grasp it, and so you make a note and you ask me in class the next day.

From observations, it was evident that the better students (students who were later identified by interview or by observation as those making good grades on exams) were doing their homework, or at least representative samples or sections. Some students mentioned that they did a few problems but rarely the numbers of problems that were assigned; and since the homework was not collected, they felt comfortable in completing this amount. The instructor did not appear to have a strong sense of which particular students were having trouble with specific units until they mentioned the difficutly to her during office hours, before or after class, or until exam time (seven tests and one final exam were given during the semester). Beyond these examinations there was no established procedure for linking homework difficulties to student problems in class.

Attendance

While the instructor encouraged students to come to class regularly (attendance was an announced requirement) and to let her know when they were unable to attend, there wasn't the option available to students that if they "understood" or "already knew" the material included on the schedule, they need not come to class -- that they could begin coming when the class was to discuss problem areas for them. She did, however, wish for students to alert her when they were planning to miss class. Observations noted that many students who began to miss class early on did not complete the semester (obviously, there are other causes of attrition).

Evaluation

Tests in Math B were given in a testing center; no class time was used for testing. Time between taking of the test by all students in the class and the return of the graded papers could be more than one week. (Tests did not become the student's property.) Taking tests in the center removed the time restriction from the exams; no time limits were placed on students taking the tests in this center.

Student Timetable

The student schedule, presented to students during the first week, included all of the chapters from the text. The pace kept the students relatively on schedule. The most difficult content sections, according to the students, were those covering fractions, decimals, and any units which included a heavy dose of word problems.

Hiring Practices

This instructor, as were most of the other instructors who had ever taught the basic math courses, was employed part-time at the college. In addition to this class, she substituted in the Math A class from time to time, taught an elementary algebra class, and math for elementary teachers. Although she mentioned having more interest in "creative" instruction in the algebra class -- there were outside academic pursuits that placed additional emphasis on this class, she noted that the basic class provided her with rewards of its own; she enjoyed the students understanding math for the first time and "changing attitudes about math."

She had been hired by the chairman of the math department specifically to teach the basic course although the other more advanced section was offered to her also. What she knew about the course at this site initially, she learned from the chairman and other former basic math instructors (and as she noted in a later conversation, from the relationship between former teaching experiences and this basic math curriculum). In addition, she had collaborated with the present Math A instructor once he had arrived on campus.

MATH C

As was mentioned at the overview of the math section, project staff investigated a basic math program at another site that offered a different approach to the teaching of developmental math and the opportunities to check theories and issues; for that reason, it was of value to this study even with the limited time available to investigate it. It is presented here in brief overview; previously mentioned theories of relating math to reality, assuming an acceptable level of self-direction on the part of students, and institutional time weave through this description.

Student Population

According to a report submitted by an outside consultant and designed to evaluate the progress of the formation of the developmental program at this site, more students had problems with math than with any other of the identified areas of possible weakness (including reading, test-taking skills, and writing ability). The students were asked to evaluate themselves as to their perceived level of abilities in the four areas mentioned above. The students' own perceptions of their abilities were then compared against scores on other standardized tests. There was an approximate 75% positive correlation between the students' actual and perceived abilities (71% in math, 65% in reading, 73% in writing). This correlation appears to support the general observation that students who enter the developmental programs are aware of their weaknesses and enter these programs as a result of that recognition.

The survey's report includes an analysis of the problem areas in regard to developmental or remedial skills at these colleges. Some college populations exhibited more reading and writing problems than others, but more equal numbers of math deficient students appeared on all campuses. Those students who had had at least one math course in the district before taking the standardized test scored at the national average for incoming freshmen in algebra. The math computation scores compared favorably with the national average at the same level. The faculty were also questioned about their perceptions of the students in developmental courses and the students in general (referred to as "average" students). It is interesting to note that although the faculty rated more students as poorer in writing than in reading or math abilities, the statistics indicated that students demonstrated lesser abilities in math than in writing. In general, the faculty ranked test-taking as a skill area where greatest benefits for students could be obtained from outside assistance; writing ranks second to test-taking skills.

There is no evidence that minority students are more deficient in math skills than are Anglos. The minority population on some college campuses exceeds that of others; however, assessment results did not indicate correlations between populations and skill levels. One class observed in developmental math skills had an equal number of minority and Anglo students, and the instructor had this to say about minorities' experiences with math and their math abilities:

> I feel that in particular the Blacks and Chicanos did not have teachers who were able to or didn't want to

> teach them and they (students) are now realizing that they are deficient and they are coming in to get help...And the older they are the more serious they are.

Program Structure

This math program was developed by a full-time math "specialist." His responsibilities were to develop curriculum, produce handouts, coordinate communications with other departments (in this case accounting, business, chemistry, physics, etc.), and do the public relations work for the developmental program.

Even though the math skills program is self-paced and self-instructional, class attendance is required. Attendance requirements vary according to the number of credit hours enrolled. Out of a total of 31 class periods -- classes for one semester -- held twice a week, students enrolled for one credit hour must attend a minimum of 15 classes, for two credit hours a minimum of 21 classes and for three credit hours a minimum of 27 class periods. An attendance sheet is passed each session, and students sign it for attendance credit. The schedule is flexible, and students may make up class time any time there is a developmental math class in session. Attrition rates are very high, as determined both from observation and from the instructors' points of view. One instructor's view about attrition:

> Attrition is high; it's high. I really try to keep on people, and I had hoped that one way to do that was talking to them a lot, having that one-to-one interaction. But it's still amazing.

This instructor appears to have actively encouraged people to attend class, feels that the individual attention should encourage students to persevere, and assumes that the structure of the course provides an ample amount of freedom and independence to pursue the completion of modules. The limits of active encouragement, the unique individual reactions to the atmosphere and the learning process in self-paced labs, and the highly suspect theory that freedom and independence drive concerted, organized effort may combine to provide far more negative outcomes than surface situations should produce.

The atmosphere during the class session is one of intense concentration and high motivation, persistence and perseverence. Whether this correlates positively with attendance cannot be determined accurately since the structure of the program allows for attendance flexibility; and obviously, the researcher could not be everywhere at once to find out. Student motivation was a prime concern for observed instructors. One instructor mentioned:

> To me, grades are irrelevant. What I want is for people to have success and to feel good about it, to feel happy. What motivated me in school was making good grades; I felt good about it; it made me happy. You know it made me want to do more, and I can't help but believe that if people can make a good grade, they will feel good about it and will have a better chance of wanting to make another. So I really give them an opportunity to make a

good grade.

The primary mode of instruction is individualized. The math skills courses in this developmental program are a combined class, including two levels of math skill development and any of the specialized math classes that are meant to be supplementary to other courses such as chemistry, physics, accounting. Individual modules corresponding to each of these math areas have been prepared by the math specialist after consultation with the instructors of various math-related courses to determine appropriate supplemental math work. The related course content is then integrated into the development course. These sections of the developmental effort function basically as intensive tutoring sessions. The class student-teacher ratio is low (in one case 6:1) which facilitates the management of the individualized instructional effort. As are other developmental courses that generally do not transfer to university or other four-year programs. Consequently, the motivation exhibited by students who take these courses rather than regular credit courses is significant. And in these courses, students appear motivated to succed.

(The catalog description for Math A and Math C are identical, yet there are glaring differences in the course formats and the "credit hours" available at each campus -- the Math C can be taken for 1, 2, 3, or 4 credit hours, while Math A offers only the option of 3 credit hours in a more conventional classroom setting.)

Instructor's Philosophy

Several basic notions about math and its relation to literacy development were cited by one math instructor:

> I think of a literate person as being a capable person in society; and in that way, I do think of certain ability to comprehend on two levels. We have verbal symbols, and we also have other symbols; and mathematics is truly a language, as much as a verbal language which we speak. For example, percent, the percent sign is a symbol. Now to really understand it relates to words, but to be a capable person in society, if you don't even understand the concept of a percent....Should a literate person understand percentage? I think they should...I think mathematics is the use of symbols. There are too many exceptionally able people in areas who really have a block against mathematics; there's no doubt about it. It's society.

This instructor was concerned with creating individual modules, for the math skills course, that facilitate work with math for people who have high "math anxiety."

> People feel like if they don't understand, they're not given the chance to understand...and the anxiety starts breeding....People say 'no one is helping me because they think I'm stupid or not able.' People feel no one helps them because they were not worthy of it; they weren't

> bright enough. And the teacher then convinces them that they're not able by his or her lack of communication with students, lack of caring or perhaps just lack of ability.

In order to facilitate communication with each individual student, it was necessary to create individual programs catering to specific needs of the students. Students may choose from the modules offered according to what they and their instructor perceive to be their weaknesses. Consequently, these classes consist of three courses being taught in one classroom, but with students working individually. The course content for the three different courses is the same (from the course syllabus or document):

Module A: Whole Numbers and Whole Numbers Arithmetic
Module B: Fractions, Decimals, and Percent
Module C: Consumer Mathematics
Module D: Measurement
Module E: Geometry
Module F: Pre-Algebra

But the difference is that students must complete a different number of modules. They may receive either 1, 2, or 3 credit hours depending upon the number of modules completed. The students may complete more modules, but they are not required to nor are they given credits -- i.e., 4 credits for four modules completed. As stated in the course document, the specific modules each student must complete depends upon four factors:

1) math background
2) student's interests
3) pretest score
4) instructor's advice (based on consultation with the student and minimal diagnostic testing)

(The one-hour courses are called "labs" or "tutoring sessions" although the term "labs" is also used to describe another activity -- tutoring on a drop-in basis for no credit, called merely "tutoring.")

This mode of instruction is very time-consuming for the instructor. Some of the problems encountered in being able to realize this form of instruction are 1) the lack of an appropriate space to carry out multilevel individualized instruction, 2) the large gap between levels of individual capabilities, and 3) the amount of work and organization that takes place in preassessing and evaluating individual students as well as keeping abreast of their individual progress.

Pre-assessment

The math department, before the arrival of a math specialist, created a student survey sheet for use in determining a general profile of the students (and their math skills) already enrolled in developmental math courses. These survey questions gathered such information as the number of developmental hours the students were taking, whether or not they were finishing an "incomplete," how they entered the college (whether with a GED, high school diploma, other), whether they had previous college experience, what other classes they were taking (presently), why the student were taking the developmental course, and what the overall educational goals of the students were. It is unclear exactly how this information was used except in consultation for selecting modules.

In addition to this survey, a diagnostic test was given during the first class period; it was basically the pretest to the first module in the course. Some sample questions are included here:

1. Round off to the indicated place:
   a. 52,498 tens   b. 6,250,493 thousands

2. Write the following in numerical symbols:
   a. one thousand sixty-five   b. three million two hundred sixty-one thousand four

3. Add: $\begin{array}{r} 2045 \\ \underline{3126} \end{array}$

Problems become more difficult as the student moves through the test.

1. Convert fractions to percent (example given)

2. Convert percents to decimals (examples given)

3. Word problems: Beatrice missed 6 questions out of 124. What was her percentage grade?

This test was used to identify students with serious math deficiencies and did not isolate specific deficiencies. Test results and consultation with the student combined to identify the student's most serious math problems.

The student completes a pretest before beginning each module. Module selections are made in light of the student's educational goals and the most appropriate math skill development efforts. An individual study plan is formulated, specifying the "1) number of Master Achievement Tests to be taken, 2) names (descriptions) of modules to be studied, and 3) minimum number of days of attendance needed to qualify for credit."

There is a late registration period to accommodate those students that are referred into the program by various other math, science, accounting, and business instructors. As mentioned previously, there is no standard testing procedures at Orientation to evaluate students' math abilities and to determine if they should be taking developmental math courses.

The Classroom Curriculum

The structure of the program, preassessment, the student population have contributed to the necessity of using a personalized instructional method. A variety of texts and materials are used in the classroom to meet individual student needs. Instructors attempt to provide drill and practice materials from core course materials for specialized math courses, that is, to provide linkages to future math course content.

The text was chosen for its relationship to "real" situations to which students could apply their math knowledge and, consequently, reinforce their learning through everyday encounters. Sections of the text deal with balancing the checkbook, interpreting interest rates for bank loans, understanding mortgages, and other consumer finance type problems. This text contains review sections at the end of each chapter. Students work independently on their problems. They do not have to look puzzled very long before either the instructor or her assistant rushes over to ask about the problem. The method observed in teaching in the classroom was explanation of a step-by-step procedure after which the instructor would watch the student work through the steps. This activity constituted most of the time during the classroom sessions and reflected intensely concentrated individual attention.

Evaluation

A document describing the evaluation policies of the class is distributed to the students in the class; it includes the following description of the evaluation method and what students should expect:

> II. Test Scores
>
> Students will take a Mastery Achievement Test in the classroom or in the Testing Center on each Module or Chapter studied. Re-testing is possible and students will not be advised to continue studying succeeding materials until a score of 80 or more is reached. However, scores of 70 and greater will be acceptable for grading purposes.
>
> Final Class Grades will be reported by averaging the highest scores on each Module (Chapter) Test according to this scale:

90-100	A
80-89	B
70-79	C
60-69	D

> Grades below this scale will be considered special cases and may result in either an F or an incomplete. Each case will be determined after consultation with the individual student.

In addition, a grade reporting form and progress sheet is kept by each instructor; they become a part of the student's study plan or contract, and a copy is provided to the student. Although the stated policy is the official department policy, one instructor's philosophy toward grading is somewhat different, insisting that the most important aspects of teaching math are student motivation and reduction of high "math anxiety":

If they don't feel satisfaction or encouragement, at

> the bare minimum, some encouragement; maybe they don't succeed, they might keep trying but people flat aren't going to be interested in mathematics, because it is more of a dry subject. You have to get involved in it and start appreciating it before I think you can have an appreciation of it...I'm kind of a softie in some ways. Some people give a lot of F's; I give lots of incompletes. I feel that if they show me they can work and are interested in working during the semester, even if they fizzle out at some time, beginning, middle, end, whenever it is, so that they don't get their work accomplished, that they have done at least enough to show me they can and want to, I usually will allow them one semester of an incomplete. I could have given a lot of F's, but I feel like giving people one more chance.

There are individual instructor efforts to provide additional time for completing the work and meeting the objectives (in these cases, appropriate grades and covering designated material by time lines). The "I" grade, however, does carry some uncertainties for the student. The department chair, not to mention the instructor giving the "I", must keep current with students who have "I's" on their transcripts. By policy, the "I" grade reverts to an"F"within a predetermined period if the student has not completed the work and replaced it with another letter grade. But because the department chair, with additional work responsibilities and limited clerical support, does not always have time to keep current with this list of students, "I" grades have been unchanged over longer periods of time. The management responsibilities on the part of the instructor and the student are obvious: the student's commitment to complete the work -- particularly if completed in addition to current enrollment in other courses -- must be very strong; the "I" grade at this level allows the student to move on into higher levels of the curriculum, yet it represents work not yet completed. The repercussions of the use of this "I" grade are worthy of further study.

General Discussion and Analysis

Selection of Students into Basic Math

While there are strong attempts to pre-advise and pre-assess students for their abilities to negotiate the courses they have selected for enrollment, many students are not advised or assessed given the voluntary nature of both the orientation session and the registration procedure that accommodates students who have made no advance plans to enroll. Most students who enroll in basic math appear to have chosen the course prior to the advising or the enrollment procedures. Presently, there are no procedures in place for determining the success rates of students leaving the basic math courses and entering the regular math curriculum sequence.

Intra-Program Coherence

The decisions to offer a basic math course to the general student population -- no matter where the course is positioned programmatically -- assumes a role that the course is to play. The determinants of that role are the student audience that the course is to serve -- their goals, interests, and abilities. Unless a community college has a specific goals statement, rigidly adhered to within the developmental and/or math departments, about the outcomes of the basic math skills program (specifying clear objectives for the students' experiences and reflecting the determinants above) decisions about the content of these courses will be left to the various departments responsible for its teaching and supervision and will be subject to their individual backgrounds and training and unique ideas about what the course ought to look like, what it ought to do, and whom it ought to serve. Even catalog descriptions leave gray areas that allow and/or promote diversity among the same course numbers. This study found that the basic math courses across the district campuses did not share common goals and outcome statements. And in light of student interview data as to career/educational/personal plans, and an awareness of general patterns of poor mathematical skills that are necessary for everyday functioning (with the significant chance that these classrooms have a representative, if not heavy number of these individuals with a myriad of goals and abilities), an expansion of the goal of basic math-- providing mathematical "literacy" for the community college -- should be considered across the sites.

There was evidence that math instructors at the Math A and Math B site face major difficulties in preparing realistic applications to related courses within their own given the wide diversity represented in the larger classes. An instructor of an applied mathematics course (required in some majors) mentioned that even the text selected for the course did not adequately present a varied array of vocational/technical applications and that it was her responsibility to communicate with these instructors to discover what applications she might teach. Another math instructor noted that the vocational application series is "...a weakness in our math program...," that the numbers of students enrolling in the applied courses is dwindling (not a national trend, however) and that in circumstances of limited resources, this small group would be the last to receive attention. There were further difficulties discussed: the continuity -- important to the sequencing processes of these courses -- was hampered by the necessity of tackling the coordination and teaching by and with part-time instruction:

> What happens on this campus is that we have a part-time instructor teaching that course all the time....a practicing engineer in town whose company is letting her have free two days a week to come teach the course. I'm hoping that we are now getting some more continuity in that sequence of courses. But the fact that part-timers are always dealing with...again, it takes away some of the continuity. But again, we can't go out and hire a full-time faculty member just to do that....And needs elsewhere of this community college are more severe.

The Curriculum: The What and the Why

In Math A and B there are no inquiries of students about educational or career goals, courses in which they are simultaneously enrolled, no observed direct applications from represented majors in the classroom mathematical examples, and infrequent references to mathematical applications to everyday experiences. A student says:

> I break up the budget to checking account, groceries. I usually do all of them. It's very odd; I don't basically have problems in that area. But relating it to terms in the manner that (the instructor) is relating them to is unfamiliar to me.
> If that makes any sense, if you can understand what I mean. I can go on to the grocery stores and add up and determine, or I can sit down and make out a budget. But I don't think of it in terms of this is decimals, this is fractions, and this is whole numbers. I don't relate to it in that manner. I relate to it -- to whatever the figure happens to be -- in what I personally need to do with it to achieve whatever it is I need to achieve.

The problems of seeing irrelevance of math curriculum to other areas of a student's life, that it is a "school" subject, emerges as crucial to the whole mathematics acquisition process. The importance of teaching material of relevance and importance to a student's life -- personal and academic -- needs no elaboration (Roueche and Baker, 1976; Roueche and Mink, 1981; Roueche and Snow, 1977; Mink, 1977; Schwartz, 1981).

A student in basic mathematics stated:

> The math, I think I need that kind of mind exercise. You know, I'm thinking I do but first, sometimes when I get to doing the homework in math, I wonder what for. Will I ever use this? But in a way, it's a mental exercise. When I'm rational and think about it, I'm not being upset about being stuck on some problem I can't find the answer for. So I really feel...now, I don't know if it's going

> to lead me somewhere through school.

It is impossible to predict how long students will continue to spend time and money to learn material to which they can assign only unspecific value.

A survey of the literature, while producing a smorgasbord of "musts" for content that most likely serves the greatest number of students most completely (that is, meets most of their own demands/wishes/needs), is best reflected here:

> It is generally conceded that the list of permanent, bedrock objectives of every curriculum in elementary mathematics should include the following: a clear understanding of the fundamental mathematical concepts and principles; accuracy and reasonable speed in computation; the ability to deal with common applications of arithmetic; familiarity with the standard geometric forms; skill in direct and indirect measurement, including scale durawing, map-reading, and graphic representation; the ability to understand and apply basic formulas, and to employ the equation method in solving significant numerical problems; the conscious grasp and effective use of quantitative relationships; and a genuine appreciation of the place of mathematics in the modern world (Betz, 1951: v).

Saunders (1980), in interviewing representatives from 100 different occupations for the purposes of identifying mathematical topics represented in these fields, indicates that Betz was correct. It is important to note that Saunders, among others, indicated that he stressed the importance of using realistic applications from the vocational areas in the classroom. (Also see Armstrong, 1977.) But as one former math instructor noted (and the message was echoed in another interview with a former basic math instructor):

> We do very little of application in those things. In fact, what I tell my students is: 'You can ask me what this applies to in real life, but I really can't tell you. I'm a theoretical mathematician and really what we're learning in these courses are tools in order to do things in other courses' ...either other math courses, photography, electronics, engineering, physics, or whatever. These are all things that they use in chemistry. They'll use them out there but we don't actually have those applications in our books. These are tools that you need and you'll use these tools later on in other courses to do other things with. That's what we're learning in these courses are tools.

But the literature suggests otherwise:

> It is well known that mathematics is of great practical value in science and technology. However, the nature of the subject is misconstrued if it is regarded primarily as a 'tool'subject. Technical skill in computation and the ability to use mathematics in scientific

> investigation, valuable as they may be, are not evidence of mathematical understanding. Such understanding consists in comprehending the method of complete logical abstraction and of drawing necessary conclusions from basic formal premises (Phenix, 1964: 80).

Mathematics becomes a "tool" only when the conceptual bases are absolutely understood; yet students in interview data do not report -- nor can they explain -- a logic to the mathematics they are learning, even at this most basic level. Instructors agreed that students must see logical connections between what they are doing and why they are doing it in order to solve math problems; we found that many students are more inclined, perhaps from desperation, toward rote learning. And while rote learning has its place in the lower grades (see Swartz, 1977; Phenix, 1964), it should have been replaced at the college level with higher levels of abstraction (see Piaget's general conclusions about developmental levels). If instruction supplied "tangible experiences before the abstract models are introduced" (Swartz, 1977: 199), it is plausible that students would evidence less confusion than they do with the subject.

Inter-Program Coherence

On a broader scale than this basic math study, interviews across our research that highlighted some features of inter-program coherence can be addressed with this example. A student who was to enroll in photography the following semester was in the process of completing pre-requisite courses, including a math course that was listed as a pre-requisite in the catalog. In response to a question about why she was taking the specific courses that she had selected for that particular semester, she mentioned the catalog statements; she could not provide any examples of mathematic linkages to the photography course. A counselor notes:

> In one area, photography, there are so many students that they can't all get into photography the first semester, and they take these support courses before (they) get into certain photography courses....I think there is a very keen understanding of the value of literacy, math skills...by the instructor because of the problems in their area; the student sits there, his skills aren't at a good working level...where maybe the student has the skills to do the welding but if they can't do the math to figure out how to make the template and lay out the pattern and cut the pipe, then it doesn't matter how good you can cut it or whether you can weld it together, because it's gonna be the wrong size....Yeah, I've heard it (instructors getting numbers of students who aren't prepared because of math or reading skill deficiencies in the vocational/technical areas) mentioned before; I don't know what proportion. I know that whatever the percentage is, I feel that creates a whole bunch of energy and effort and time of that

instructor to try to correct that or work around that somewhat.

In interview with a math instructor who taught one of these math pre-requisites for the photography course, the researcher inquired about the relationships between these two courses.

Interview: I was talking to a student the other day. She majoring in phototechnology. Evidently, there's a whole group of mathematics courses required up to intermediate algebra. They must have intermediate algebra. Are you familiar with why that's required?

Math Instructor: No, I don't know why. I assume it's something to do with calculations that they have to do about chemicals and so forth in the photography.

Interview: I was just wondering.

Instructor: I don't have any idea....I've done some photgraphic work....As far as I could see it, it didn't require algebra. But there were focal lengths and there's a bunch of study about the camera that I'm sure if you're a photography major that you need to learn those things. So maybe there's enough that would need some algebra to do it.

There was further evidence, from an interview with a vocational instructor, that inter-program coherence is more pervasive -- not limited to a singular group of courses.

Instructor: ....Those courses are not required to be a mechanic. They're required for a degree in the state of Texas because of the twenty-five percent rule...I guess you're familiar with that, aren't you?

Interviewer: No.

Instructor: Oh, yeah. To get a degree in the State of of Texas...twenty-five percent of your courses have to be general education. That's where math comes...they slide math in there, technical report writing, English, grammar....

The Textbook

Bankston (1975), using Kane's Readability formula, found that remedial students reading math texts with lowered reading levels, did better than remedial students using the higher level texts. Furthermore, however, she noted that the difficulties of assessing the "loading" that numerals and word problems place on readability tests, make an accurate assessment of math texts difficult, if not impossible -- that only extreme differences in reading levels could highlight different results with different groups of students. In our own assessment of the readability of this text, we entered the numerals as technical terms, but even then had to acknowledge the relatively shallow assessment that could be produced. In addition, the text as written had relatively few instances where contiguous prose appeared in the text and thus could be used to determine a readability level. The readability was conducted by submitting ten passages of at least one hundred words to the computer program. Furthermore, the technical terms were identified and submitted to the program for inclusion in its analysis. The mathematical computations were treated as technical words. For example, 3 + 5 = 8 was inserted as a term, but the individual numbers were not. The readability on the same passages was reperformed but the mathematical computations (equations) were not treated as technical words and the computer assumed that they were one letter words. The reading level, determined by this procedure indicated that the text was written at about the eighth grade level with few variations up or down the reading scale. It must be emphasized, however, that the literature consistently points to the difficulty of making any determination about reading level that is not conditional upon the student problems associated with doing word problems and negotiating numerals and operational symbols with prose.

The text presents decimals, addition and subtraction of whole numbers, multiplication and division of whole numbers, factors, and factoring, fractions, decimals, equations, ration and proportion, percent, measurement, measurement of geometric figures, and signed numbers. It was chosen to provide more algebraic and signed number computations. In addition, as one instructor remarked of the former text:

Instructor: ...it was a very hard text to read... it was also for a more sophisticated student than I would say--
Interviewer: Than is taking the basic math skills course?
Instructor: Right.
Interviewer: Are you referring to readability in terms of the student's ability to read the text?
Instructor: Yes. It was the same content, but -- right in terms of readability.

About the present text, a basic math instructor noted:

Instructor: Well, I don't find that book necessarily difficult to understand. In fact, when I first saw it, I was somewhat appalled at the elementary-lookingness of it.
Interviewer: Simplicity?

Instructor: Right. It was on too elementary a level, I thought initially, for college students. And I discussed it with the people who had chosen the book. And, they said that it had been their finding that people at this level liked a lot of pictures and things. So, I stopped worrying about that fact, and went on with it; and last semester I had not one student tell me that they thought the book was too easy or too simplistic because of the kinds -- the way -- the presentation, I thought, was on a more elementary level than I had anticipated.

Interviewer: You didn't anticipate diagrams and all that?

Instructor: I don't know; it just kind of hit me wrong, I guess. By wrong, I mean that it impressed me -- if I were going to go in and take this course, I would have thought that they were talking down to me. But then once I understood more, I guess, on the level of the students taking the course, that would not necessarily mean the same to them, that it would...increase their interest... that mathematics was not just a book full of words and numbers, that it would be more than what they were accustomed to, or different from what they were accustomed to. Then I adjusted real well to it and liked it that way. I didn't get any problems last semester at all from people who were not satisfied with it.

Instructors agreed that a sixth or seventh grade reading level would probably be sufficient for negotiating the text; our analysis was that it was written on about the eighth grade level (see readability appendix). However, there was no effort to check for reading scores from tests taken during orientation and/or provide reading tests in the math classes; it can be assumed that this population would follow some fairly well-accepted national norms -- that they most likely represent the wide gamut of reading abilities in any community college classroom and that the eighth or ninth grade would be an approximate average. It is assumed that classroom mechanisms for determining that it _is_ readable is doing well on exams, doing homework correctly. But observations indicated that while students were assigned problems and reading in the text, there were varying reports that students had to read it or did all of their homework. The better students -- those who persisted until the end of the semester with passing grades -- most typically asked questions that would indicate they had made some advance preparation for the class by asking questions that demonstrated some familiarity with the text material. Observations, and an interview comment from one basic math instructor, determined that students had to do limited text reading: instructors "walked" students through the book; one considered it a personal responsibility to "interpret" the text for the students; homework was not collected daily and could have been prepared in part during and after class discussion of the assigned problems. Thus, it is possible that students did not avoid reading the book because they could not or did not want to but because they believed it to be unnecessary to do so. This is not to say that the instructors did not encourage reading; homework assignments included reading prose (definitions and instructions) as well as math problems.

Ausubel (1968) proposes that students -- all individuals -- learn best when the material is presented in a sequential fashion that is building upon previously-learned or stored information (and several math instructors mentioned and further discussed the additional important concept of spiral or cyclical learning -- to be discussed in a later section) and that students perceive an inclusive whole, the substructures of which are the sequential sets of materials being learned at any one time. In other words, students should have a clear idea of the "larger picture", how the material being learned fits into that picture (also see Gagne), and what relationships exist between previously-learned material and newly-learned material. In short, he suggests a strategy of using "organizers", the principal function of which is "to bridge the gap between what the learner already knows and what he needs to know before he can successfully learn the task at hand" (as presented in Entwistle and Hounsell, 1975: 97). In our analysis of the text, applying this theory to the presentation of the material, it was clear that the structure of knowledge did not promote this natural inclination to "fit" pieces into a larger picture -- rather, the text segregated similar mathematical tasks into separate chapters with no connecting rational links one to another.

> As a result of this latter practice, students and teachers are coerced into treating potentially meaningful materials as if they were rote in character and consequently experience unnecessary difficulty and little success in both learning and retention. The teaching of mathematics and science, for example, still relies heavily on rote learning of formulas and procedural steps, on rote recognition of stereotyped 'type problems' and on mechanical manipulation of symbols. In the absence of clear and stable ideas which can serve as anchoring points and organizing foci for the incorporation of new logically meaningful material, students are trapped in a morass of confusion, and have little choice but rotely to memorize learning tasks for examination purposes (Ibid.: 101).

In interview, a former basic math instructor shared with the researcher a sense of growing dissatisfaction among several math instructors (who were currently reviewing new math texts) with the teaching of mathematics along traditional sequential lines and in discrete units, that such approaches were not necessarily the most appropriate ways to teach mathematics to community college students.

> Now, I always attributed that (poor student performance on final exams) to being in a community college; the students didn't know how to study as well, and that they had too many finals all at the same time. But...I think the problem's more serious than that. I don't

> think that our methods have been adequate for teaching for retention (interview with math instructor).

In considering the adoption of a new text (basic math not available presently, but planned), these instructors were re-thinking the sequential, linear conceptual base in light of a pilot project conducted using a text based upon a concept most frequently referred to as spiral learning; briefly, the spiral learning approach in this text arranges all of the ideas and principles of mathematics that are fundamental to a discrete mathematical unit -- algebra, calculus, and so forth -- and presents them to the students early in the course, then continues to reinforce them and offer frequent practice in progressively more difficult problems throughout the book. The idea is not new (see Bruner and Dewey); learning theorists have urged instructors to provide meaningful contexts for new learning with building block approaches (individual sequencing of material) that provide students with strong foundations of the basic principles of any discipline, principles that are not taught as discrete units and are frequently reviewed.

> ...it (the text) incorporated an awful lot of the things that were being learned recently about how people learn: the repetition, the coming back at it from different perspectives, getting small parts of it and then increasing the difficulty... (interview with math instructor).

The Presentation

Both Math A and B instructors used the lecture mode with visual support -- writing on the board (or overhead projector). More than any other group, minority students mentioned most frequently that they expected instructors to explain material until they "understood" it; but by the same token, they were most often the group that complained of instructors' choice of vocabulary in making those explanations. (These data do not suggest that the lecture vocabulary must be changed to accommodate any particular group, rather that there be more attention to defining "suspect" general vocabulary terms as well as the math terminology that is typically defined during the course of the lecture.) They, then, were most dependent upon the instructor's ability to include sufficient material in a visual manner. Yet as the semester progressed, those students who took fewer and fewer notes, tended to drop out of the class. It can only be hypothesized that the quality of the message for these students -- that is, what they were able to gather from the lecture (what it included and how they recorded it) did not provide them with sufficient information to negotiate the material.

The Math A and B site provided a tutoring lab to offer additional support to all math students.

> If the individual differences of students are to be taken seriously, the implications are that alternative approaches to learning should be provided (Entwistle and Hounsell, 1975: 194).

The sign-in sheets for these labs contained few names of students who were in the basic math courses; most were at higher levels than the basic math. Interview data reflected general student dissatisfaction with tutorial situations: the tutors were condescending or did not explain adequately or assumed that the student knew more than he did. In light of this information, it may be assumed that only the classroom instructional approaches were viable options, or were utilized by basic math students.

In student interviews, there were frequent reports of reliance upon or preference for the verbal presentation style, as opposed to self-paced modes of instruction.

> I wouldn't want to take one like that (self-paced course). I wouldn't like it because that was something I'd have to learn on my own. There was no discussion in there...but doing your homework and turning it in and getting the grade. I don't see how you can learn something like that on your own -- unless someone helps you out and tells you what they know about it -- unless you know a lot about it.

This student had been enrolled in a self-paced course at one of the research sites; however, rather than a general evaluation of the course -- a student is on his own -- the student as likely could have been reflecting the sensitivity that he would have felt in asking questions of a tutor or a lab instructor, drawing attention to problems he had with the material. In addition, class discussion could have provided some "sorting" evidence -- what is important in the material and what is not. The statement -- "I don't see how you can learn something... on your own... unless you know a lot about it" -- reinforces some research premises that important building blocks to future learning are more and more frequently missing from a student's repertoire when he enters a community college. This student, in a simplistic way, has clearly identified a troublesome issue:

> In mathematics one really knows the subject only if he knows about the subject, that is if he does his mathematics with self-conscious awareness, examining and justifying each step in his reasoning in the light of the canons of rigorous proof. This is why it is not enough to teach students of mathematics how to make calculations and demonstrations skillfully and automatically....The student of mathematics can be said to know mathematically only if he understands and can articulate his reasons for each assertion he makes (Phenix, 1964: 73).

It is in this light that the importance of continuing attention to students' verbal participation -- whether in a one-to-one situation or in a group presentation -- is clearly indicated.

Assessment

Students were typically interested in knowing whether or nor they would do well on the exams if they could work the problems in the posttest at the end of the chapters, or if they could do the problems on the homework. It appeared that they were requesting some indication that the problems would be the same. Examinations did reflect the "type" problems that had been presented in class. There was no application requirement by which students must select appropriate functions (except in word problems).

If the relationship between the structure of knowledge -- as presented in the text -- and assessment procedures reinforces the student's practice of memorization, control of text upon the structure of exams should be re-examined. In other words, if an "A" grade in class represents scores on exams that demand use of memorization skills -- without understanding of the concepts involved in the procedure -- the grade represents a level of proficiency that will allow the student to move on successfully only if the memorization demand never changes -- that is, if he is only asked to produce memorized materials, he will be successful. If, however, he is asked to do more than reproduce a visual image he has of a procedure, then he more likely will flounder.

While instructors were encouraged by the possibility that textbooks might be adopted that promoted repetition of procedures (that is, students would be continually practicing the mathematical computations that they learned from the beginning of the course, rather than completing a chapter and never referring to the content again until a final exam), there was one-expressed concern that the repetition alone would make students "comfortable enough" with the material to do well on tests but would not indicate understanding of material. "Maybe it's not entirely good to be encouraging them to think they're A students " (interview with math instructor). We contend that the basis upon which they would be encouraged to think so -- the absence of building interrelationships and testing practices that would promote and encourage thin or nonexistent conceptual bases -- should be reconsidered, that it is not the repetion that is to blame, but rather the structure that does not provide another strategy for learning the material (see Ausubel in Entwistle and Hounsell, 1975).

It is evident that students -- in the interest of time or conservation of effort or what have you -- process information in ways that they perceive will be most effective and rewarding later on -- that is, study habits that students adopt are often more than individual, idiosyncratic processes (see Miller and Parlett, 1974); they can be teacher-induced by the instructional strategies, assessment procedures that are utilize . If students anticipate particular questions, they will prepare or study to answer those particular types of questions (see Marton and Saljo, 1976). The design of instruction and assessment practices that foster the development of substantial, valuable study skills are instructor responsibilities (MacKenzie, et al, 1970).

The Relationships of Language and Mathematics

> ...knowledge of ordinary language consists in the ability to use symbols to communicate meanings. While the same statement also holds for mathematics, there are significant differences in emphasis in the two cases. The uses of ordinary language are largely practical. Its symbolic systems exist for the most part to serve the everyday needs of communication. Mathematics is nor primarily practical, nor is it created as a major basis for social cohesion. To be sure, mathematics has many uses, as its wide applications in science and technology demonstrate. But these

> practical uses are not of the essence of mathematics, as the social uses of ordinary discourse are. Mathematical symbolisms are essentially theoretical. They constitute a purely intellectual discipline, the forms of which are not determined by the exigencies of adjustment to nature and society (Phenix, 1964: 71).

It is a different language than is used in normal discourse; students who complain about "just not understanding" what the instructor is saying are identifying a common problem. Learning common discourse patterns is simplified because students have "links" to common experiences; everyday language refers to familiar events and things, at least within and between cultural groups that share similar experiences and environments. Mathematics, however, is an invented language that, by being removed from actuality, can "...in the long run...(yield)...the most practical applications" (Ibid.: 72). However, the route to these practical applications is circuitous and demands that students are willing to suspend practicality for indefinite periods of time -- sometimes with the only practical uses appearing in the sciences and technology, and then only in rigorous and limited ways; the literature reflects concerns that students in need of basic skill development need more immediate rewards (Cross, 1981).

> It follows that mathematical meanings are communicated effectively only to those who choose to become familiar with the symbolic constructions within particular mathematical systems. Mathematical communities thus tend to be specialized and limited rather than inclusive, like the major ordinary language communities. Mathematical languages are, so to speak, artificial dialects understood only by the members of special communities of voluntary initiates (Ibid.: 72-73).

A significant finding of the project's mathematics investigation is that students have difficulties in learning a new language -- and it is. Although mathematicians admit that normal language could be used to learn and use mathematics, they argue that monumental effort that would be involved in defining terms compared to the efficiency of using an entirely different set of terms that have been (are being) prepared for the discipline of mathematics is not justified.

> ...because there's lots of new vocabulary words and that throws people at the beginning a great deal, and I always try to soften the blow and say, 'Look, y'all, there's going to be a lot of new words, you know and this is reading; a lot of your problems here could be reading problems so to stress to read, over and over and to take time and not get impatient with yourself, cause you don't understand the mathematics 'cause you don't understand the words.' So, I feel like I do a lot of working with improvement in literacy, even though I'm working with numbers (interview with math instructor).

It appears that in the face of some concerns -- on the parts of students, instructors, and employers -- that mathematics is an impractical and irrelevant discipline (to real life demands, to many academic efforts) as it is taught presently, there are strong indications for reconsidering (in addition to improved communications among practititioners) modifications in the language that instructors of mathematics use to describe mathematical procedures in the classroom and their application to what happens outside of it.

Word Problems

Instructors and students provided overwhelming data that word problems were frustrating, typically unsuccessful problem-solving efforts. All of the math instructors admitted that most of their students did not read well and that these poor reading skills, coupled with the problem-solving demands of word problems, made for anxious students and little success.

> So, therefore, if their reading ability is not on the level of the text, no wonder they can't solve a word problem. They don't know a word, and they can't read it, and they can't understand it...You just can't skim over it, because there are too many important words that have to hit you in the face before you can solve a problem (interview with math instructor).

Instructors contended with this student problem by proposing some procedures whereby students could "get a handle" (student interview data) on what they ought to do, where they ought to begin.

> But very frequently those students are the ones who don't know where to start, don't know how to go about writing down steps and putting information down in a systematic way. They evidently look at it differently (interview with math instructor).

One instructor frequently proposed: "Just put yourself into the word problems. Pretend that this is actually one of your problems." In light of the student interview data, we would contend that they have great difficulty doing that when the "classroom" math is typically described as unlike the math that they must, and do, use outside of the classroom; that is, it appears to remain a "school" subject. Students appear to be hard-pressed to draw the relationships between their own academic/vocational pursuits and/or personal interests and needs on their own.

Another instructor used a more rigidly-constructed heuristic -- a step-by-step procedure for approaching problem solutions. One student's response to a questions about this process reflects similar responses from others:

> I sat down and tried to figure out mathematically what the questions were asking. At the same time, basically what I tried to do is not to revert back to my old methods of doing things but to take the information that she was giving to us in class and apply the information she gave (interview with student).

Yet some students mentioned that there must be a "right" way to proceed to solve mathematical problems and that their task was to search for that proper procedure rather than creatively come to some procedure of their own -- making logical chains of information -- that would produce the correct answer. Students appeared to hold to a narrower view and to have difficulty visualizing the procedures as a larger structure in which information could be processed. It is this theme that appeared in the literature, with some critics of the rigid "steps" to problem solution advising that instruction in mathematics may not be conducive to developing problem-solving abilities at all and may well create a student frustration with the seemingly inflexible, tedious process. In speaking to a conference group of mathematicians, Allen comments:

> The students become the ones that Mitchell Lazarus (1974) described in seeing mathematics as an obstacle in school and as irrelevant in adulthood. These students will not reach the level of mathematical sophistication we have reached. They will not be permitted to make careless mistakes that some of you make with this problem (1977: 1).

According to students, the word problems in math were different than the word problems in other subject areas. It is possible that the interest factor and/or the more general familiarity with terminology (i.e., more relationships to common discourse) was responsible; however, responses similar to the following were common:

> ...mathematics, word problems, I'm lousy...when you're talking about word problems in algebra, I'm totally lost. I don't know what's happening. When you're talking about word problems in business class I'm taking now, I know it's quite easy for me. You get into algebra, I sort of mess up. Talking about that, I'm a little under average. Talking about business, I'm a little bit above average (interview with student).

This student, with others, inadvertently may have proposed an instructional plan of action for improving relationships between courses (content) -- taking advantage of the support structures of interest and familiarity by identifying student interests and strengths and including appropriate examples from other disciplines that could improve overall performance.

Institutional Time

The math faculty generally agreed that learning math takes time -- time to assimilate the new information and develop skill in using that information. While they agree upon this general principle, they were directed to offer basic math (and other math courses up to elementary algebra) in the 5½ week summer terms. The time that an institution allows a student to move through a course, if Bloom's theory of mastery learning (that 98% of all students can successfully learn any material given time to do so) is to be believed and pursued programmatically, will greatly affect whether or not students complete that course successfully. We found in our observations, and instructors also noted, that many students had not had any mathematics since high school sophomore level, others had been out of school for many years, others did not know the multiplication tables, and so on. It is this range of diversity that questions the likelihood that these basic math courses are "review" courses -- as instructors contend; it is this range that underscores the need for reasonable flexibility with the time that different students will need to reach the same levels of understanding and competence. Cross (1976) provides results of survey data indicating that various institutions are implementing non-punitive grading systems for courses with developmental foci. The program attendance policies that encourage "withdrawals" or "drops" when course objectives have not been achieved by certain semester dates and that do not provide mechanisms whereby students can be recycled through the material without penalty are worth reconsidering in light of the outcomes -- non-productive grades (W,I,F) and high attrition (see chapter on Attrition).

Math Anxiety

Interviews with instructors and students provided an overwhelming concensus that the process of learning mathematics brings on stress and anxiety.

> (There are some) students who, while generally capable in other subjects, suffer from a specific, long-standing inability to cope with mathematics. They may see themselves as bright, functioning individuals who have a great deal to contribute, but who happen to be 'dumb in math'. Students in this group rarely challenge their placement into remediation. Instead, they often request outright exemption, on the grounds that their talents lie elsewhere and they will never learn the remedial content anyway. A few bring notes from their therapists (Hecht, Akst in Trillin, 1980: 22).

This phenomenon* has continued to reappear in this study and deserves a significant focus section of this report.

Math anxiety is significant because instructors cannot address the other problems and demands of learning mathematics without making some progress toward reducing the amount of anxiety students feel in the math classroom or negotiating math materials. Math anxiety not only prevents students from "getting to first base but often effectively prevents them from even picking up the bat" (Kogelman and Warren, 1978: 12).

> ...the material especially at the (developmental) level is not highly conceptual or difficult. I think a lot of people have a mental block against it, which creates for them the difficulty of doing that. And, so I can really understand that people can't do math; but I believe that, at that level, that it's more a psychological block than a lack of ability to learn the material (interview with math instructor).

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*Spellings for the term that describes this phenomenon vary by source: mathephobia, mathphobia, mathophobia.

The phenomenon of mathphobia, encompasssing the interactive dimensions of math anxiety and math avoidance, is real; the strategies for determining causation, prevention measures, and remedies are, at present, unclear (Smith, 1979). A review of the literature provides a host of possible defining characteristics of behaviors of the phenomenon -- in this setting, the community college, it has been evident in student avoidance of math courses, in majors that require more than the rudiments of basic math, poor performance in math classes, and tendencies to memorize materials given the student perceptions that they cannot begin to internalize the conceptual bases for problem solutions.

There are varying estimates as to the serious nature of mathophobia in the United States. Lazarus (1974) estimates that possibly 50% of the population might experience aversion to mathematics. Kogelman and Warren (1978) note that the phenomenon appears at all educational levels. Betz (1978) and Tobias (1976) agree that even though men may have just as much math anxiety than women, women are more disabled by it; furthermore, they agree that either men are better at hiding math anxiety or that math anxiety was more debilitating for women and more difficult to overcome in a performance situation. Smith comments: "The literature points out that there is probably no difference between males and females in mathematical ability, but there are strong attitudinal and math avoidance differences (1979: 7).

One math instructor describes a typical female student in math:

> The women coming back to school don't always fit the mold as well, because as a whole, they've been out longer, and for some reasons, this is a stereotype: all of them are insecure about their (math) abilities. They all want to start at the lowest course. The housewives coming back to school are just sure they don't know anything. And, they want to start at the lowest course there is. And, of course, they make straight A's.

Woolfolk and Richardson write:

> ...so for women, math anxiety and avoidance can result from a combination of factors which include sex role stereotypes, identifying with female teachers, and active passive reinforcement by peers, teachers, counselors, and society (1978: 24).

An instructor of developmental math comments:

> Well, I'm saying that a lot of things about math, 'I shouldn't be able to do it, and I'm anxious about learning it is a woman thing. And I haven't checked the roll, but it seems to me that there are more women in my classes than men in the basic skills....

The same instructor continued in an analysis of the causes of this phenomenon:

> I've done a lot of work in this (at the university level) on how students have a lot of problems before. But one problem, especially in women, is that women are counseled out of -- or at least they were in the past, counseled out of taking math courses from high school teachers, and... there have been articles written where if you...come home with a bad...grade...in math class, a lot of times the mother says, 'I didn't do well in math either' or the father says, 'Your mother isn't good at math either' or something like that.

Other discussions in this section have been built around the issue of relevance of mathematical content to other life areas. Further elaboration is unnecessary here except to include this issue as a possible contributor to this phenomenon. A student says:

> ...it (all the problems) seemed too complex...Well, I couldn't see a purpose in why I should have to do this. Why should I write algebra problems, what purpose in life do they have? I haven't...run across problems where I've had to use algebra or geometry.

Braunfeld writes:

> There is further argument that because we live in a society based upon technology (and hence mathematics), it is important for everyone to understand mathematics. Generally, this argument has always left me cool. It is by no means clear to me that we cannot thoroughly enjoy the fruits of a tree that we do not understand. It seems to me that I live in many worlds that I do not understand.
>
> In view of all this, I find it difficult to believe that my ability to cope with and understand my world is greatly affected whether I can or cannot solve a quadratic equation, whether I do or do not know linear algebra, or whether I do or do not understand the fundamental theorem of calculus. I mean all of this from a purely practical point of view (1977: 27).

Just as the content often holds negative connotations for the student, so often does the math teacher. Two of the basic math instructors recall experiences in support.

> Someone asked me 'What do you do?' And I said, 'I teach school.' And they expect me to say I teach lower grades. I get the feeling that they expect me to say I'm a third grade, or I'm an elementary school teacher, or what have you. And I say, 'I teach college.' And then you say, 'Where do you teach?' and "What do you teach?' I say, 'I'm a math instructor.' As soon as I say 'math instructor', they back off.
>
> It's funny; you meet people in a casual relationship, and

> you tell them you're a math teacher and the typical response is, 'Oh, I was lousy at math when I was in school.' And math sort of has this mystique that even if a person signs up for an arithmetic class, it has that mystique that I don't think English and writing courses do, or history courses; you name it -- especially if this is your first math class.

Not only do people have perceptions that math teachers are not "human", but often students have developed strong negative feelings about them. A student talks about one of her math teachers:

> Well, you see, I haven't had any math for...I had the last time I took it was in the tenth grade. That teacher and the teacher before that...we filled out our own gradebook and checked out our own tests. So, of course, nobody learned anything other than came to class. Then my tenth grade teacher, I decided I wanted to learn; and I started asking a lot of questions. He was a history teacher that got stuck in math...I don't know what he wanted to be. He had some sort of 'hang up' about a lot of questions. He's always yell at me saying that I was just testing to see if he knew what he was talking about. He wouldn't answer my questions, so I quit.

Similar comments from students, and from math instructors who recalled childhood experiences (typically of other children), occurred too frequently to overlook their contributions to the feelings that students bring with them to the math classroom. Separating ability from feeling, the unwillingness to try from being "dumb in math" are complex efforts; this study found the variables of how one feels and how one performs to be so inexorably tangled that they must be considered as one giant teacher preparation issue and an important problem/solution effort.

The "Sorting" Impact of Math Anxiety

While further research is crucial for establishing strong sex differences in math performance (hence artificial barriers to economic opportunities), there are plausible relationships that can be made to the situations of the culturally different student. (For research in sex differences, see Sells, 1973, and Ernest, 1976.) Some tentative statements can be made.

It is possible that anxiety stemming from studying mathematics could be compounded with racial and ethnic relations anxieties to make mathematics acquisition more difficult for the culturally different student. And when there is a language difference, the difficulty is further compounded. In a very brief interview with two Black students, they explained that they were taking the course "because we're dumb." When the basic anxiety stemming from meeting the demands of the discipline are compounded with past school anxieties and any racial/ethnic relations anxieties, difficulties with the content may follow. In this project's study, there were recurring themes of anxiety/avoidance (e.g., see Child Care discussion). As researchers, we had difficulty with studying the processes through which culturally different students learned mathematics -- that could be generalized to a specific ethnic group -- as they did not persist in significant numbers through the curriculum. Our own attrition-retention study indicated that Mexican-Americans and Blacks represent a significant number of drop-outs (withdrawals) and that mathematics courses register high on the list of courses identified most often as the critical roadblocks. It may well be that not only women but the culturally different have been filtered out of mathematics through their own personal/educational/cultural experiences with the processes of learning mathematics. It would, then, stand to reason that they have also been filtered out of higher-paying, more technical jobs that require the knowledge and skill in mathematics.

Summary

This study of the math assessment and math skill instruction provided our study with further evidence that inter-program coherence is problematic at the community college. Furthermore, the "skill perspective" (see Reading chapter for the larger discussion of "skill perspective" and "skill ideology") -- the teaching of math skills removed from a larger student context, while strengthening the intra-program coherence, was problematic for students -- it was frequently removed from other personal and academic experiences. Student manipulation of text was guided by the instruction that served, although did not actively encourage, to provide students with alternatives to reading. Finally, in spite of strong efforts to the contrary, registration procedures that severely complicate the advising and testing procedures produce "...a disproportionately high number of students registered in the (math) courses who were not prepared for the courses... ." (Elsewhere in this report we discuss the effects of course selection upon student careers -- see particularly the Attrition).

Bibliography

Bankston, L. V. THE EFFECTS OF THE READABILITY OF MATHEMATICAL MATERIALS ON ACHIEVEMENT IN REMEDIAL MATHEMATICS IN A SELECTED COMMUNITY COLLEGE. (unpublished dissertation). University of Texas at Austin, 1975.

Betz, N. E. "Prevalence, Distribution, and Correlates of Math Anxiety in College Students," JOURNAL OF COUNSELING PSYCHOLOGY. 1978, 25 (5), 441-448.

Betz, William. EVERYDAY JUNIOR MATHEMATICS, 2nd ed. Boston: Ginn and Co., 1951.

Bruner, Jerome S. THE PROCESS OF EDUCATION. Cambridge, Mass.: Harvard University Press, 1960.

Cross, K. Patricia. ACCENT ON LEARNING. San Francisco: Jossey-Bass Publishers, 1976.

Cross, K. Patricia. ADULTS AS LEARNERS. San Francisco: Jossey-Bass Publishers, 1981.

Cross, K. Patricia. BEYONG THE OPEN DOOR. San Francisco: Jossey-Bass Publishers, 1971.

Daniel, J. W. "Math Anxiety," DISCOVERY. University of Texas at Austin, September, 1978, 8-11.

Entwistle, Noel Hounsell, Dai. HOW STUDENTS LEARN. University of Lancaster, United Kingdom: Institute for Research and Development In Post-Compulsory Education, 1975.

Ausubel, David P., "Cognitive Structure and Transfer," 93-104.
Bruner, Jerome S., "Beyond Information Given," 105-116.
Gagne, Robert M., "Domains of Learning," 15-25.
Marton, Ference, "What Does It Take To Learn?" 125-138.

Ernest J. "Mathematics and Sex," AMERICAN ANTHROPOLOGICAL MONTHLY. 1976, 83, 595-614.

Glasser, W. REALITY THERAPY. New York: Harper and Row, 1965.

Kogelman, Stanley and Warren, Joseph. MIND OVER MATH. New York: Dial Press, 1978.

Lavin, David, Alba, Richard D., Silberstein, Richard D. RIGHT VERSUS PRIVILEGE. New York: The Free Press, 1981.

Lazarus, M. "Mathphobia: Some Personal Speculations," NATIONAL ELEMENTARY PRINCIPAL. 1974, 53 (2), 16-22.

MacKenzie, N. et al. TEACHING AND LEARNING: AN INTRODUCTION TO NEW METHODS AND RESOURCES IN HIGHER EDUCATION. Paris: UNESCO/IAU, 1970.

Marton, F. and Saljo, R. "On Qualitative Differences in Learning: I -- Outcome and Process," BRITISH JOURNAL OF EDUCATIONAL PSYCHOLOGY. 1976, 46 (1).

Miller, C. and Parlett, M. R. UP TO THE MARK: A STUDY OF THE EXAMINATION GAME. London: Society for Research into Higher Education, 1974.

Mink, Barbara W. "Focusing on Mastery and Individualized Instruction," NEW DIRECTIONS FOR HIGHER EDUCATION: INCREASING BASIC SKILLS BY DEVELOPMENTAL STUDIES. Number 20, Winter, 1977. San Francisco: Jossey-Bass, 51-64.

NIE Conference on Basic Mathematical Skills and Learning, Vol. 1: Contributed Position Papers. U. S. Department of Health, Education, and Welfare. National Institute of Education, 1977.

Allen Charles, "A View From Within the Classroom," 1-7.
Armstrong, J. M., "Basic Mathematical Skills," 8-12.
Braunfeld, P., "Basic Skills and Learning in Mathematics," 23-32.
Fey, James, "Remarks on Basic Skills and Learning in Mathematics," 51-66.
Swartz, Clifford, "A Quantitative Approach to School Learning," 196-202.
Wirtz, Robert, "Where Do We Go in Mathematics Education?" 214-221.
Zacharias, Jerrold and Lazarus, Mitchell, "Newton Goes to Euclid," 222-226.

Northcutt, Norvell. ADULT FUNCTIONAL COMPETENCY: A SUMMARY. University of Texas at Austin, March, 1975.

Phenix, Philip H. REALMS OF MEANING. New York: McGraw-Hill Book Co., 1964.

Roueche, John E. and Baker, G.A. TIME AS THE VARIABLE, ACHIEVEMENT AS THE CONSTANT: COMPETENCY-BASED INSTRUCTION IN THE COMMUNITY COLLEGE. Washington, D.C.: American Association of Community and Junior Colleges, 1976.

Roueche, Johe E. and Mink, Oscar G. HOLISTIC LITERACY IN COLLEGE TEACHING. New York: Media Systems Corpoeration, 1980.

Roueche, John E. and Roueche, Suanne D. DEVELOPMENTAL EDUCATION: A PRIMER FOR PROGRAM DEVELOPMENT AND EVALUATION. Atlanta, Ga.: Southern Regional Education Board, 1977.

Roueche, John E. and Snow, Jerry J. OVERCOMING LEARNING PROBLEMS. San Francisco: Jossey-Bass, 1977.

Schwartz, Ricahrd. "relating Mathematics to Critical Global Issues," JOURNAL OF DEVELOPMENTAL AND REMEDIAL EDUCATION, Vol. 5, No. 1. North Carolina: Appalachian State University, 1981.

Seidlin, Joseph. A CRITICAL STUDY OF THE TEACHING OF ELEMENTARY COLLEGE MATHEMATICS. New York Teachers College, Columbia University, 1931.

Sells, L. "High School Mathematics as the Critical Filter in the Job Market." IN DEVELOPING OPPORTUNITIES FOR MINORITIES IN GRADUATE EDUCATION. Proceedings for Conference on Minority Graduate Education at the University of California, Berkeley, May, 1973.

Smith, William. TREATMENTS OF MATH ANXIETY: ANXIETY MANAGEMENT TRAINING, SYSTEMATIC DESENSITIZATION, AND SELF-HELP BIBLIOTHERAPY. (unpublished dissertation). University of Texas at Austin, 1979.

Taschow, Horst G. "Reading in Mathematics." 1970. Eric. Ed-046-670.

Tobias, S. "Math Anxiety: What Is It and What Can Be Done About It?" MS., September, 1976, 56-59.

Tobias, S. OVERCOMING MATH ANXIETY. Boston: Houghton Mifflin Co., 1978.

Trillin, Alice S. and Associates. TEACHING BASIC SKILLS IN COLLEGE. San Francisco: Jossey-Bass, 1980.

Hecht, Miriam and Akst, Geofrey, "Mathematics," 208-260.

Woolfolk, Robert L. Richardson, Frank. STRESS, SANITY AND SURVIVAL. New York: Monarch, 1978.

CHAPTER VI
ASSESSMENT AND ANALYSIS OF WRITING SKILLS, FRESHMAN ENGLISH, AND TECHNICAL WRITING

Overview

In this section, two approaches to the pre-assessment of writing skills will be generally described and analyzed. It precedes another general description of writing skills courses as they are related to Freshman English. This discussion is followed by an in-depth study of Freshman English and related tutoring issues. Finally, a general description of Technical Writing, an English program offering for which Freshman English is a prerequisite, completes this chapter.

Like all of the studies in this report, this section must be seen as only a part of the study--not as a self-contained piece of research. The interest was in uncovering the pattern of literacy usage in the classroom--the way in which the classroom interaction was structured and regulated through the use of written language. In what follows, then, there is a focus on the written materials and the literacy tasks themselves--the texts and writing assignments, the attitudes of the instructor and the students toward these materials and tasks, and the ways in which they are actually introduced into the classroom.

Pre-assessment of Writing Skills

The research sites provide a mechanism for st[illegible]ting skills pre-assessment at Orientation. The rationale for pre-[illegible]ent is that it provides college advisors with information which they relay to the students about their skills. This information is shared with students in hope that it will facilitate and direct the students in making decisions about appropriate course work. According to an instructor, some students are aware of their areas of weakness:

> Most people who come to us are starved for basic skills; they know that they need those basic skills. Their past experiences have prevented them from getting those basic skills, and they're really serious about gaining them. We have another group that just wants to brush up. They want to develop self-confidence before attempting the regular courses or they will take one of our courses along with one of their regular courses, just for security. We have many people who take developmental courses who don't really need to but they lack self-confidence. We help them to discover that they really are capable of attempting a full load of college courses.

For those students who do not possess either the requisite skills or the confidence to negotiate "regular" college level courses, advisors will recommend that these students consider enrolling in an appropriate developmental course.

This chapter was prepared from the combined writings of Tom Logan, Nora Comstock, Suanne Roueche. (Technical assistance was provided by Susan Higgins, Terry Mason, and David Mardiros.)

Observations were made of pre-assessment procedures during the Orientation sessions prior to one spring semester. Informal conversations were conducted with instructors during these observations (formal quotes were obtained in interviews with English instructors during that semester). Researchers were provided with samples of student writing collected during the assessment period, along with accompanying recommendations.

Approach I

After receiving a time permit, if a student has less than 30 college credit hours, he is given a form on which to write his name, address, social security number, and number of college credit hours. At the bottom of this form, the student is requested to write a short essay. This is a voluntary exercise; the student may refuse to participate. The instructions on the form are:

> We need a sample of your writing in order to advise you in your selection of courses. This writing sample will be critiqued by a panel of English instructors. However, this writing sample will not become part of your permanent record, nor will it be used to force you to enroll in any particular course.
>
> Below are listed five topics for your writing sample. Choose one of them and write a paragraph of at least 10 sentences. Take your time, think about the subject and plan what you want to write. You may use both front and back of this sheet. Write about one of these five topics:
>
> Telephones, The Future, (My Town), Energy, Trust.

The topics are rather arbitrary, and there is no explanation of why such subject matter constraints should be placed on the students' writing. There has been no prior warning that writing samples will be solicited. The writing tables are usually rather crowded. Circumstances, then, are not ideal for getting good samples of the students' writing. Add to this that the time constraints probably prevent students from using their revision/rewrite skills, and the use of these samples for the "assessment" of writing skills becomes rather dubious, at least at first glance.

The samples are to be evaluated by at least three writing instructors in the following fashion. Two instructors read the samples, and, if appropriate, make recommendations to either writing skills I or writing skills II. The writing evaluators also make recommendations to the developmental spelling classes. If the two evaluators agree on their recommendations, the recommendation stands. If the two instructors disagree, then the head of the developmental writing components reads the sample, making the final decision. The final recommendations are stored in a computer for use at Orientation.

Two points should be made here: first, the recommendations to specific sections of developmental writing skills classess are problematic. Both sections are conducted in the same classroom and assignment to sections is made on the basis of a short "diagnostic" test, given on the first day of class. As with all recommendations to developmental classes, there are no sanctions for or against enrollment--all enrollment is voluntary.

The second point to be made about the writing samples is that there seems to be no clear criteria for evaluating them. During a slack time at

Orientation, a developmental instructor and an English instructor--both of whom had been involved in evaluating the writing samples--discussed this problem. Both agreed that the lack of evaluative criteria was a major concern: for example, what was to be done with an essay that was grammatically perfect, but empty of content, or written on a "fourth grade" level? What did one do with an intelligent but poorly written essay? The English instructor, laughingly, said that really only about 5% of the samples he had read were good and that the rest were dreadful. The developmental instructor agreed, but pointed out that many of the students probably did not put much effort into the writing.

Other instructors, in interviews, claimed that there was a set of guidelines for "grading the papers":

> ...it is something like this: Look to see if the student can write complete sentences, look to see if the student runs sentences together, look to see if the student can use punctuation and spell.

These are all reasonable, but one suspects that the real questions deal with how many and what kind of mistakes are allowable, and how the complexity of the attempted writing is taken into account. When a developmental administrator was asked for a list of the evaluative criteria, the response was that the criteria had never been written down, that the same instructors had been evaluating the samples for some time now, and that therefore everyone knew what the criteria were.

At least two points emerge from analyzing a small collection of the writing samples. First, "recommendations" consist of course numbers written at the bottom of the page of the sample--no rationales or explanations are given; no marks are made on the student's writing. If the recommendations differ, the administrator of the developmental writing component circles the one with which he agrees and marks out the other. Again, no explanations are given.

The second point worth noting emerges from the simple fact that the instructor recommendations often differ. Such disagreements are not simply about whether a student should be in writing skills I as opposed to writing skills II, but whether a student should be in the writing skills classes at all. The following examples give some idea of the extent of these disagreements and the inconsistencies in the applied evaluation criteria. (All proper names used are inventions of the researcher. Original spellings and punctuations have been retained.) This sample comes from a young Mexican-American student with 42 college credit hours:

> I am a student from St. Bernards University. And my future plans are to finished college, and get a degree in Criminal Justice. I am planning to finish college in St. Bernards university. My advisor told me about the community college, and I decide that I want to take a class. I plan to finish and have a job in the border patrol. I would like to be a costm I've always wanted to work with the federal goverment. I think that with the three hours I'll get here in the community college would help me a lot with my hours.

This student was recommended by one instructor to take only the spelling class, by another instructor to take the writing skills I and by the administrator of the writing component to both. No mention is made of the fact that the student's first language is apparently Spanish. The next sample comes from an Anglo student with "approximately 40" college credit hours:

> In the future I plan on having a career in the feild of aviation. If everything goes as I have planned, I will be a fighter pilot in either the U. S. Navy or U. S. Air Force in about 2 1/2 years. If for some unforseen reason I am not accepted to flight training in one of the services listed above, then I will still persue a career in flying. My next choice would be to fly for a private corporation or company. The point is that I am going to fly airplanes for a living. Right now I have a private pilots licsence, and when I graduate from college, I plan on have enough experience in aviation to secure a career in flying.

This student was recommended to no classes by one instructor and to a developmental spelling class by another (this latter recommendation was endorsed by the developmental administrator).

An Anglo student with "3-4" hours submitted the following writing sample:

> The future could certianly have the most said on any occacsion. The future I consider the most is my own which is why I am here. In the future I hope to be able to make decisions with more substance than in the past. My future I hope will open doors for me starting with this short conjecture I am writing now; leading to more subjects I have not yet considered. In the future I certainly hope to more easily find the words to express my opinon on any subject. I also hope somewhere in the future my handwriting will improve as well.

The recommendations for this student were "none" from one instructor and writing skills II from the other. The developmental studies administrator endorsed the second recommendation.

Finally, this sample comes from a student with no post-secondary experience:

> Trust is something that you can depend on through out your life. It may sometimes cause you a lot of greif and pain. When you can trust someone you now that you have a real friend that you can depend on when things are going bad. And when someone says that they trust you it will make you feel so good inside. I have hear a lot of people say you can trust me and then you turn around and everybody knows what you ask them not to tell anyone. Trust is something that you will always remember through out your life. So alway have trust in the people that are very dear to you. If you can't trust at least one person who can you trust.

One instructor recommended this student to writing skills I; another instructor felt that no writing recommendation was necessary. The administrator felt that writing skills I was the proper recommendation.

The problem here is not whether one instructor or the other was right, but whether or not such samples can be adequately assessed, and whether or not the assessments that are made are consistent and intelligible. It seems apparent that the students have trouble finding things to say. Not one of the four examples meets the 10-sentence requirement. There are also signs that the students were hurried and did not take the time to check over their work--students sometimes misspell words in one section of the paragraph and then spell them correctly in a later section. It seems worth repeating that the students are not forewarned that they will be required to submit a writing sample when they pick up their time permits.

With regard to the quality of the assessments that are made, the diversity of evaluations seems to corroborate the opinion of the instructor who felt that the criteria were not explicit enough. It is also likely that the instructors evaluating these samples did not have adequate time to carefully study the samples. Also, to allow the students' number of credit hours to determine whether or not a writing sample is to be taken creates an important question: how does one say that a person who has a "pilots licsense" or a person who had 105 college credit hours is suffering from a lack of writing skills--one might ask: writing skills for what?

Approach II

This approach is much less rigidly organized. The assessment is not done at the time that Orientation permits are solicited. Instead, once students leave the orientation room, they are routed to the student lounge, where, while waiting to take the reading test, a representative from the developmental program explains that writing skills courses are available and recommends that the students take time to have their writing skills assessed before enrolling for courses. She recommends that students write a paragraph about themselves and submit these to her. The rate of response for this type of solicitation is unknown. However, this approach, in the final analysis, must rely heavily on in-class testing for recommendations to writing classes. According to an English instructor, developmental writing is

> ...able to identify students (during Orientation) that need developmental courses. And then we did (find) that some too, in our English courses, and were able to advise students, particularly to drop (Freshman English) and enroll for a developmental writing course, or add a course, or seek assistance (tutoring lab), or a number of other options that we have available.

This policy of giving Freshman English students diagnostic tests (actually, the same sort of writing sample as was found in Approach I) during the first week of classes and then recommending transfers to the developmental writing classes is endorsed by a developmental program administrator, who circulated the following memo to the English faculty just before the beginning of one semester during the observation period:

> Please consider getting writing samples from your students during the first class period so that you can advise them about adding or substituting a developmental writing skills class.

Discussion: Pre-assessment

The recruitment strategies of the two approaches are difficult to compare for effectiveness. Enrollments at the various sites in writing skills classes are comparable in numbers. However, the sites utilizing Approach I assess many more students than do the sites utilizing Approach II. It can be safely said that only a small proportion of students entering the college have their writing skills assessed, and that, of this group, perhaps half actually enroll in writing skills classes. What are the consequences of these systems for the students? Are the writing skills classes necessary preparation for the Freshman English classes (required for all students seeking credentials from the college)?

Discussion: Writing Skills Classes

Formal interviews were conducted with two developmental studies administrators, three developmental instructors, three English instructors, and nine writing students. Nine developmental writing classes were observed, and class materials were collected. The data provide the basis for this brief, capsulated overview of three writing skills classes.

The relationship between the developmental writing courses and Freshman English is unclear. The Freshman English classes are designed around James Kinneavy's theory of the "aims and modes" of discourse. The "aims" appear implicitly in the writing assignments of the developmental writing skills classes. For example, an instructor will tell writing skills students that she is asking them to write a "descriptive" or an "expressive" essay. However, these terms are not explained to the students in Kinneavy's framework, and the essays themselves are evaluated for their grammatical correctness--grammar being the main subject matter of the developmental writing skills courses. While there is communication between the English and developmental programs, and while some part-time instructors teach in both programs, there is no explicit attempt to integrate the curricula of the two programs.

There are, however, two trends discernible in the attitudes of the English instructors toward the developmental writing courses. Some English instructors see writing instruction mainly in terms of the tutoring function. That is, as a service (either tutoring or concurrent course enrollment) to be offered students having trouble in the Freshman English courses. Speaking of the quality of the tutoring labs, one English instructor complained that when:

> ...a student comes in with a paper that I've sent, they (the tutors) sit down and say, "Oh, here, here, here," they circle words and correct them and what not, they go through and correct the paper for the student and the student rewrites it and copies it and turns it in. The student hasn't learned anything. And that's the majority of what they've been doing. And I've had students come back with papers like that that were wrong, so wrong, someone else is still giving the wrong form.

Other English instructors feel that developmental writing courses are beginning to deal with students more and more "up front"--that is, assessing and channeling students into developmental writing courses before they enroll in Freshman English courses. An administrator of the English program at one of the sites stated he thought that as a result of the efforts of the developmental program, fewer students were needing referral from Freshman English to developmental courses. However, the memo on referrals cited earlier suggests that this shift in function (if such it is) is not yet complete. In addition, this administrator stated that she did not think that all Freshman English instructors were heeding the memo requesting first day assessment of their students.

The sites utilizing assessment Approach I seem more completely assimilated to the idea of developmental writing skills classes as preliminary, or mediating steps--courses to be taken before Freshman English (though, of course, these sites also have a very active tutoring lab for students not enrolled in developmental courses). In fact, the faculty of these sites seem to rest at the opposite extreme from the sites utilizing assessment Approach II with regard to their views on the integration of developmental courses with other college programs. Where the Approach II sites seem to view these courses in terms of giving supplemental aid to students, the Approach I sites see it as more preparatory in nature. One developmental administrator (Approach I) said:

> We're not in the business of teaching courses that end, that provide an end for a student, in that certainly no one after a set of developmental courses could consider themselves perfectly educated, but if they want to go on, it is our job to provide them with the means with which to go on. Now that doesn't mean that every student will go on, or that we expect them to go on. That's their choice. But it is our business to prepare them if they want to.

This quote describes an important organizational phenomenon (commented upon elsewhere). Administrators and instructors can concern themselves with students only insofar as students enroll in courses over which they have some control. Thus, the administrator just quoted does not consider the student who does not enroll in the developmental program, nor does he consider the student after he leaves the developmental program. This is understandable from an administrative point of view. There is some question, however, as to whetherthis view is proper in terms of student learning. If, as we have argued in this report, the student's school "career"--from pre-enrollment to post-enrollment--is the proper unit of analysis, then we must consider not only administrators' rationales for their programs (and other programs in the college) and the demands of individual courses and programs, we must also consider the relationship between courses from the perspective of the student moving through the college. From this perspective it becomes vitally important why and how students enter a particular path of courses and how the articulation of the courses may influence the "success" or "failure" of the students.

Consider the following example. One instructor, who teaches both Freshman English and a developmental writing skills class, stated that the type of students in the two classes were:

> ...the same. The students I have in my writing skills class could be a group of (Freshman English) students picked arbitrarily....I have writing skills students who, the day they walked into my class were much more advanced

> than some of my (Freshman English) students are at the end of the semester...it's a class that people take voluntarily. We can suggest to people that they take it, but we can't make anybody take it; and a lot of people are not advised to take it but are interested in a review of grammar, or are real nervous about their writing ability. So they sign up. In some cases those are the more conscientious students.

According to this instructor, the developmental writing skills course

> is designed to be a preparation for (Freshman English), and we do that by teaching them to write sentences, teaching them how to punctuate and capitalize, and giving them some practice in writing whole themes.

As might be inferred from the quotes already presented, some instructors feel that too much time must be spent in the Freshman English class going over the fundamentals of grammar:

> ...probably for the majority of people who take (Freshman English) it wouldn't be a waste of time to take writing skills. And another thing that ends up happening in (Freshman English) is that a whole lot of them don't pass; they don't get through. They're dropped from the class because they're unable to do the work.

Frequently, instructors who assess their students at the beginning of the semester feel that their recommendations to writing skills class or tutoring assistance by and large go unheeded by students. Since Freshman English is a course required of all credential-seeking students in the college and time is crucial to them, it seems that they make a decision to take the risk of not following the instructor's advice.

We must consider, then, that developmental writing skills classes are offering a different "service" to the same students as enroll in Freshman English classes. Freshman English is a required course, but developmental courses are not--although at least in the eyes of some English instructors the course material of the developmental program is a necessity for success in Freshman English (however, it should be pointed out that instructors by no means fail the majority of their Freshman English students).

FRESHMAN ENGLISH

Sources of Data

Four Freshman English classes were observed over the period of two long semesters, representing 56 separate observations and involving four English instructors. Formal interviews were conducted with two adminstrators of these programs, six English instructors, and thirteen students. However, informal conversations were conducted with more than one-half of all the students enrolled in these courses. There were two observations of task force (curriculum) meetings. There was one extended session during which an English instructor allowed the researcher to observe his grading of a set of student essays. Researchers were also supplied with samples of students' writing, some of which had been previously marked by the instructor. In addition, one researcher assumed the role of an English tutor in the tutoring lab for several months in order to work directly with students from Freshman English classes.

Overview

The English program has the largest enrollment of any program in the college: between 2,500 and 3,000 students. Of all those enrolled in English courses, only about 70 students are English majors. The vast majority of students take English courses because they are required for their programs of study. The most required course in the college is Freshman English: required for every program of study in the college, whether vocational or transfer. That most of the students taking English courses are simply fulfilling the freshman composition requirement is readily acknowledged by administrators in the English program:

> . . .they're all gonna be taking some kind of English course. And the one they will all take, eventually somewhere along the line, is composition . . . . They have to go through composition to get to everything else.

One may infer from the position of the Freshman English program in the structure of the college that its purpose is to impart to the students some skill in writing which will stand them in good stead in other college courses. Because of the large number of students who must take the course, because of the organizational importance of the course, and because of the intrinsically close relation of a writing course to the development of literacy skills, the Freshman English course was selected as a major focus of the research. Because the design of this program is relatively unusual -- representing an attempt to integrate two innovations -- we begin with a brief sketch of the history of the program and the nature of the innovations.

Evolution of the Freshman English Curriculum

In its first years of operation, the college attracted a large percentage of students who came from backgrounds not traditionally associated with college attendance. Also in the first few years there was no department of developmental studies. This meant that the Freshman English teacher had to deal with the total range of abilities typical of the open door community college: from high school dropouts reading on a fifth grade level and writing worse, to students holding B.A. or higher degrees who had returned to school after a long absence to brush up on their writing skills. In the first few semesters, those who were members of the original staff had to evolve a curriculum to meet the needs of this diverse student population. To quote one of the staff members:

> We hit the ground running. It was not a full-blown college when we opened. We didn't even have procedures that people take for granted even in the smallest rural school district. We just didn't have anything.

The English staff brought with them the curricula they had been using in the past at other community colleges. These curricula were based on the ideas of "individualized instruction." The individuals who brought these curricula had been in correspondence prior to the opening of the college, having become acquainted on the basis of their mutual interest in individualized instruction. One of these individuals, M., was hired as the first Dean of Instruction for the college. As he stated his position:

> I strongly advocated trying to structure things so that students could progress at their own rate, with the idea that nobody should be failed . . . . If the student doesn't finish, he doesn't finish. Why even record or grade . . . why not just give him more time, or why not let students drop anytime they want, up to and including the last day of class? I mean there's all kinds of ways of dealing with it without failing a student . . . .

M. was responsible for hiring a staff. He used his position to insure a like-minded group which would support his innovative approaches:

> My main consideration was my impression of whether or not the people I hired were really interested in doing all they could to help the student succeed . . . . If they were punitive in their outlook, I didn't want them.

The instructors and faculty members he hired were aware from the start of the reasons that they had been hired. According to T., who was the first program leader in the English department, and the individual with whom M. had communicated, "When this college opened up I had the opportunity to come here primarily because of my interest in individualized instruction . . . ." M.'s hiring practices led to the assembly of a group of faculty leaders, which, despite differences in background, was relatively homogeneous in belief in assumptions about teaching composition.

Underlying the evolution of the curriculum throughout its history has been the shared belief of the original authors of the course that instruction in writing provides an opportunity to do more than just teach writing. Some of the underlying intentions which have influenced the course of the development of the curriculum, often indirectly, are:

1. That students should be able to deal with the complexity of modern life through an increased ability to think coherently. The original staff feel that bringing writing into coherence brings thinking into coherence. This, they believe, will give the students the ability to order thoughts under pressure.

2. That students learn to process information effectively. These instructors feel that many of their students come from segments of the society which have historically been victimized by those who have been able to use the channels of communication to their own advantage. The staff believes that understanding the various aims of discourse will enable the students to defend themselves against exploitative uses of language. This intention is most clearly expressed in the use of the modes of discourse approach adopted by the faculty after several years.

3. That students develop a better self-image through a realization of the worth of their own ideas. The staff believes that the externalization and concretization of students' ideas will lead them to recognize that they are not the second-rate thinkers that many of them came to believe themselves to be in high school. The staff feel that in many cases these students were graded on the amount of knowledge they possessed on entering the class rather than being evaluated in terms of how much they learned after being given instruction. They believe that when students are given the opportunity to write without fear of being given a failing grade they will be able to express themselves more fully and will see that they do have something to say.

The innovations institutionalized by M. and the rest of the leadership can be discussed under two familiar rubrics: content and form, in this case curriculum and pedagogy. By content, or curriculum, is meant the subject matter of the course which students are expected to acquire as knowledge. By form, or pedagogy, is meant the organization, presentation and evaluation of the content.

Content

In the first Freshman English course, students began work at the level of the paragraph and moved to the level of the expository essay, which is typical of the content of many Freshman English courses. After several years, several changes external to the English faculty resulted in an environment which was conducive to content innovation: 1) M. quit his job as an administrator and joined the English faculty as a full-time instructor; 2) as the college had become established and enrollments had increased, the average writing skill level of students in Freshman English had risen. According to one instructor, "We don't see as many students with severe problems as we used to . . . I have fewer students with severe writing problems;" 3) the developmental studies department was created.

There were two significant aspects to the creation of the developmental studies program. First, those students whose writing skills were so low they obviously needed developmental courses no longer had to be accommodated by Freshman English; they could enroll in writing skills classes instead. Second, included in the developmental studies department was a new tutoring lab where students could receive free tutoring in writing. There had been tutorial courses offered by the English department, but they had not been fully supported by the administration. The English faculty was now able to expand the tutorial functions beyond a minimal level. With the creation and funding of the developmental studies tutoring lab, students had more tutors available over a greater period of time. At about the same time that these external changes were taking place, changes were being made in the content of the Freshman English course. The changes involved the teaching of a discourse theory based on the work of James Kinneavy (1971). As one staff member explained the selection of the Kinneavy model:

> The reason we've gone to the Kinneavy model is that it's kind of a real-world model . . . so I can point to something that the student reads in the Sunday paper, or sees on a billboard, or hears on the radio, or on television, or anything that can be spoken or written, and point to that and say, 'Here's what this is and here's how it works, and there's a theory that accounts for it.' And that's one major thing that we did try to account for, just by the theoretical structure of what we're teaching. So we're at variance a little bit with the standard, expository, controlled curriculums of Freshman English because we've introduced this other element that Kinneavy derived theoretically. So we get into writing activities that are 'expressive', that allow the student to express himself; we don't have much regard for standard English, but then we can also show the student where standard English fits....

According to the English faculty, Kinneavy's theory, in part, a "systemization of concepts which have been around since Aristotle." Kinneavy links the various aims of discourse with the different elements of a model of discourse based on a model which breaks communication down into four elements: the sender, the receiver, the signal, and the underlying reality. Very simply then, the "aim" of a piece of discourse, which has primarily to do with the encoder of the message is referred to as "expressive". The aim of discourse which centers on the receiver of the message is termed "persuasive." Discourse which is concerned mostly with the signal is said to be motivated by the "literary" aim. The fourth aim is the "referential", which is concerned with the "reality" which underlies the message being sent.

In the contrast to the aims, the "modes" of discourse are not related to the nature of communication but rather to the way in which the message attempts to capture reality. The "narrative" mode can be considered as story-telling. The "descriptive" mode consists of the encoder telling what it is that makes something stand out as unique. The "classification" mode divides a subject into mutually exclusive categories; while the fourth mode, the "evaluative" is basically critical, comparing alternatives and making some value judgment about them.

Kinneavy acknowledges that almost no piece of natural discourse will belong to only one category, but rather it must be classified according to a dominant aim and mode. According to Kinneavy, if the communicative act is to succeed, the message-sender must encode his message in such a way that the receiver can infer the intent from the characteristics of the encoding. Each aim and mode has distinctive features which serve as identifying markers of the message-sender's intent.

Students were expected to learn the basics of Kinneavy's theory just as geometry students learn theorems or history students learn dates and events. At the same time that they learned the theory, students were expected to put it into practice in writing papers, just as geometry students do proofs and history students do essays combining facts. However, unlike in most geometry and history courses, in the Freshman English course the pedagogy of the course results in less emphasis on theory for those students who have the most writing skill problems (see end note), while those students with the fewest writing skill problems are expected to do the most application of theory. Students in the "C" track (discussed below) read the same text on aims and modes and attended the same lectures over the subjects. However, they were not expected to analyze their writing in terms of aims and modes to the same extent as the "A" and "B" track students. Students whose writing skills were well-developed would be expected to spend less time rewriting papers and more time polishing their skills and learning what was, for most of them, a new set of ideas about writing. Thus, the three components of the course content were discourse theory, basic writing skills, and advanced writing skills.*

The three-faceted curriculum was given concrete expression with the development of the course syllabus implementing the tracking system. Just as the content of the course underwent change in response to a number of factors, so too did the form of the course. Originally, all instructors at the college were contractually-bound to provide elements of self-pacing and individualization in their courses. In the early Freshman English course, the choice of topic for writing assignments, and the time limits for their completion, were made very flexible. In essence, the course was self-paced -- students who could not finish the course in one semester could be granted an "incomplete" and allowed to complete the course in the next semester. Students were also given the opportunity to rewrite papers and tests until the instructors accepted them. Under the early syllabus, students could take the writing tests in ascending order: they could take the "B" test after passing the "C" test and could take the "A" test after passing the "B" test.

Over time, this instructional approach encountered a number of problems. One problem, according to the instructors, was that many students wanted and needed more direction. Therefore, some of the elements of self-pacing were dropped from the curriculum. Another problem was that enough students put off work to the end of the semester to create real problems for instructors. This meant that instructors had to grade large numbers of papers in the last few weeks of the semester. In response to these problems, the instructors altered deadlines for the writing assignments, and enforced a policy whereby they could drop students from the course if the students did not make satisfactory progress, as spelled out in the syllabus (this was in part to avoid giving the student an "F"). In practice, if an instructor felt that a student was not making an effort to keep up with the assignments, he could point to the syllabus and warn the student that he would be dropped unless he met the syllabus' (schedule's) requirement. However, instructors had discretion in these cases and could allow students to fall behind if they felt the students were capable of making up the work.

Another problem with the early syllabus arose from students retaking the tests over and over, trying to improve their grades.

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*This division is not apparent from the day-to-day routine of the course. There is no such division in the day-to-day thinking of the instructors. However, the staff has, in the past, made changes in the curriculum and pedagogy which affect one of these areas and not the others, such as recent attempts to bring some aspects of the "C" track assignments more into line with the "A" and "B" tracks regarding reading and analysis. These changes would indicate that the staff is aware, at some level, of this analytical division.

This put time constraints on the instructors, as it required that they graded many more tests than they had planned. Also, the instructors felt that the students were putting pressure on them for a passing grade after so much effort had been expended on the same paper.

Another facet of the syllabus which was changed was the degree of flexibility in the writing assignments. The instructors found that some students were writing most of their papers with the expressive aim, which shares the fewest rules with referential (expository) writing. Since the expressive is not an aim suited to academic writing, they felt that they had to be more specific in the mode and aim to be used in the writing assignments. In this system, the students were to choose the grades they wanted to work for, after first having turned in some assignments and being counseled by the instructor. Students would be allowed to revise their contract grades downward at any time during the semester, but only under very unusual circumstances would they be allowed to revise their contracts upwards. The rationale for this policy is that students with low skill levels should not spend time trying to work beyond their capacity, but should use the time and effort to build their skill level, utilizing tutoring or remedial classes. Students who revised their contract upward would be required to rewrite all the past papers and retake all past tests. Of interest in this report is the fact that the "C" plan, the lowest grade plan, was qualitatively different from the "A" and "B" plans.

Both the "B" and "C" plans call for students to write eleven papers of comparable length. Both plans required the student to write each of the first four papers with a given aim and each of the next four papers in a given mode and each of the final three with two stated aims. However, the "B" plan required that students read a stimulus essay from an anthology and use the general subject of that essay in writing. The "C" plan simply called for students to write an essay in a given mode. The "B" plan also specified two aims from which to choose in writing, while the "C" plan simply requires that the student state the aim being used. This allowed the "C" plan student to use the expressive aim which is governed by the least number of restrictions on form. The final three papers were "extended"; that is, they were at least three paragraphs long and from 300 to 500 words. For both plans, the aim of each paper was assigned, and it was required that the student write in two different modes. The "B" plan further required that the student read a stimulus essay and write in response to it. In the final paper, the "Extended Referential Paper," the "B" plan student was required to analyze the selection giving textual examples, discuss the author's aims and modes and evaluate how effectively the author achieved his aim. The "C" plan required simply that the student have two aims and use two modes writing a three-paragraph 300-500 word paper.

The assignments for the tests reveal even more clearly the difference between the "C" and "B" plans. In the "C" plan, tests require the student to write a paper on an assigned topic with whatever aim or mode the student finds most appropriate. The "B" tests require that the student write a paper on one topic as in the "C" plan but also requires that the student give and explain his choice of aim and mode for each optional topic. The third test under the "B" plan is similar to the eleventh paper. The student is required to read a selection, write a 350 to 550 word referential analysis of it interpreting the meaning, discussing the aims and modes and the author's effectiveness in using them, as in the eleventh paper. In addition, the student was required to write a 200-word response to the selection using the style of one of the three aims.

It is clear from these differences that the course taken by the "C" student was not the same as that taken by the "B" student. That the "C" track student is to learn to apply less of the theory is in response to the feeling that the English department has an obligation to first and foremost teach composition in composition class. In not requiring the "C" student to apply theory, the faculty was trying to allow him more time to write and revise papers. According to a full-time instructor, the goal for "C" students is "coherent writing", thus the rationale for the curriculum in different sections. The "C" student, though he hears the same lectures and reads the same book, is expected to spend less time mastering theory and more time practicing to develop skills.

The syllabus developed by the full-time English faculty is the most extensive and detailed in regular use at the college. According to one instructor:

> We impose syllabi for every course. Standardized, completely. The objectives, the number of assignments, the grading criteria, the whole business, all are given to the instructors for all students in all of our courses in English with the exception of creative writing and second semester sophomore English . . . . We have such a large number of part-time people; over 70% of our courses in English are taught by part-time people. If we didn't exert that kind of control, we would have pure chaos.

One rationale for this control is that it allows students to change from one class to another, from day to evening classes, or to change campuses according to the dictates of their out-of-school commitments and still have continuity in the course. This level of control also allows the full-time staff to maintain as much of the original course design as possible. They do not, however, dictate teaching style. This is left up to the individual teachers. According to a full-time faculty member:

> We don't prescribe a particular kind of method at all. We want it set up so it accommodates an element of self-pacing, so that it actually demands a system that allows rewriting . . . But what the instructor does

> in the classroom is up to him . . . But what's taught and what objectives are reached, that's standardized.

The official administrative name for the syllabus is the "course document." The official policy of the college requires a course document for each course taught. As mentioned above, the Freshman English course document is unusually detailed. This document is divided into six sections: 1) "How you get a grade," 2) the first four paper assignments, 3) "The "C" plan, 4) "The "B" plan, 5) "The "A" plan, 6) "Class Activity Schedule."

The section "How You Get a Grade" includes attendance requirements and deadlines for the completion of sections of the couse as well as an explanation of the grading system:

> Accepted means the paper fulfills the objectives of the assignment and is free of grammatical, spelling and punctuation errors.
>
> Revise means the paper fulfills the objectives of the assignment but you have not used some of the accepted conventions of writing. In this case, you will confer with your instructor, refer to a text, or go to developmental tutoring labs . . . . In order to progress in the course, you should avoid similar errors in subsequent papers. The revision process is designed to prepare you to meet the final objectives of the course without making serious writing errors.
>
> Rewrite means either that the paper does not fulfill the objectives of the assignment or that the paper contains serious writing errors. In this case, you should confer with your instructor if you do not understand why the paper is unacceptable, and then rewrite the paper.

The second section details the first four writing assignments, which are to be completed by everyone. These consist of papers written in accordance with each of Kinneavy's aims; one expressive, then literary, then persuasive, then referential. These papers parallel the topics covered in class over the first four weeks. After the completion of the fourth paper, the syllabus instructs the student:

> After consulting with your instructor select the grade plan you intend to follow beginning with Test I. You may change to a lower -- but not higher -- grade plan at any time.

The faculty's rationale for not allowing upward changes in grade plan is that students changing to a higher grade would have to rewrite their papers and retake tests. Faculty members also stated that students knew their own ability levels well enough to opt for the correct grade level the first time in most cases. In the event that a student was obviously in the wrong grade plan, instructors stated that they would allow students who came to them and asked to change levels to do so. They did not, however, announce this to the class as a whole. The faculty feels that students who have underdeveloped skills should spend their time writing and rewriting papers rather than working on the theoretical content of the course. The prohibition against upward changes in grade plan is meant to dissuade marginal students from attempting to move up as their skills improve somewhat, thereby making further progress in learning to write more difficult.

Each of the grade plans gives specific instructions for eleven papers and three tests. Some of the aspects of these plans have been noted.

The class activity schedule details the topics to be covered each week and the due dates for each paper. The due dates are not enforced by penalty but are strongly suggested. Students who fall too far behind can be dropped from the course by the instructor. The tests are taken in the testing center and so can be taken any time the student is ready by obtaining authorization from the instructor. Tests have to be taken before the following paper assignments can be turned in. Most instructors kept fairly well to the schedule; some pushed ahead to make room at the end of the semester for conferences and for preparation for the final exam.

The Text

The Freshman English text was written by two of the original staff members, M. and T. When M. moved from his administrative position to the English faculty, he once again had time to pursue his interest in curriculum development. T. had been using an outline of the Kinneavy theory, which he developed in graduate school, in his composition classes. M. sat in on T.'s classes to listen to his lectures and observe student reactions. He then elaborated the outline into the first half of the new composition book. The second half came from his observations in T.'s classes and reading of Kinneavy's book. This draft was then revised by T. and then given final form by both working together. The writing of the text took place about the same time as the implementation of the tracking system syllabus; the connections are quite clear. The book is divided into eleven chapters, a foreword, and an appendix on mechanics. The text falls into five sections: the foreword, the aims, the modes, the aims again, and the appendix. The foreword sets the tone for the entire book. Although written in slightly more elevated style than the rest, with longer sentences of greater complexity, it is direct and personal. First person plural is used throughout, as in, "We subscribe to the principles of the Conference on College Composition and Communication, that students have a right to their own patterns and varieties of language." They also demonstrate that the audience for which the foreword is intended is not the student but other professionals.

The content sections of the text are written in an informal, personal style obviously designed to be read with ease. The sentences are short and generally simple in construction. Again, as in the rest of the book, first person plural is used. The text is addressed directly to the reader, as in, "If you ask around, you will find . . . ," and, "We'll try to explain this to you . . . ." In addition, the text makes use of a number of signaling devices to make the message as clear as possible -- e.g., topic headings, wide spacing between topics, underlining of important points, and charts and diagrams. All of these features were used based upon the decision of the authors to write as clear and readable a text as possible. The use of these textual features reflects the authors' concern with fostering student learning. Another reflection of this concern is the use of self-tests throughout the text. These four or five item quizzes cover each unit of material and are about one to one and a half pages in length. The answers are provided, written upside down, following the questions. After one test the authors explain the upside down answers: "Of course, if you want to cheat and peek it's O.K.; but since there is no rule against it, it won't be much fun."

Each content section begins with an introduction covering the general subject of the section. These are followed by chapters on each of the aims and modes. In the introduction to the aims section, the authors state their own aims:

> In this text we hope to achieve the following:
> 1. Help you identify the AIM of a piece of writing.
> 2. Give you experiences with writing of different types. (You may find that you are better at some than others. Until now you have probably only been asked to write referentially.)
> 3. Improve your writing . . . or at least give you some good reasons for giving it up.
>
> We don't expect that this book will:
> 1) Make you love English.
> 2) Make you a better person.
> 3) Make you a better American.

These last three items must be taken as a device to put students at ease. The authors of the text both believed that if they were truly successful their students would indeed be "better," according to their humanist beliefs. All the full-time faculty members involved in the production of the Freshman English course expressed the belief that the study of writing would help students develop characteristics in other areas, such as cognitive skills, which are positively valued by most educators (values on which the concept of the liberal arts is founded).

The section entitled "The Aims Again" covers material relevant to the final three papers and the final exams. Each chapter of the aims section ends with a summary, in outline form, of the material covered in the chapter. This outline is essentially the one from which the book originally evolved. The chapters on the modes end with sections called "Tips and Topics" which serve to provide some clarification of the material and some ideas on the application of the text to writing assignments.

The section called "The Aims Again" covers material relevant to the last three papers and the final exam. Instructors give deferential importance to the final exam as an indication of how much the student actually learned. Full-time faculty explain that emphasis is put on the final exam because it is the "exit behavior" for the course. In other words, each component of the course is supposed to lead to the cumulative final. The section on "Aims Again" elaborates on the theme of secondary aims, an idea which is introduced early on but which is not covered in depth until the end of the course. Most of the instructors observed made a point of emphasizing that most real world examples of writing involve more than one aim. As the text states:

> The longer the writing is, the more likely it will be to have characteristics of a number of aims and modes. But most of the time one aim or mode will stand out -- it will be primary. The other aims which appear will be secondary.

The chapter continues to cover the compatability of aims and to give examples of student work. These examples include two essays on the same topic by the same student, one the length of the previous assignments, about one hudred and fifty words, the other "extended" as in the final three papers and the final exam, about four hundred and fifty words. These examples are followed by discussin of their various features, followed by more examples and discussion. The use of examples is not unique to this section of the text; each chapter contains several examples, most of them student work.

The appendix on grammar is quite brief, especially in comparison with other, more typical composition texts intended for students at this level. A "Note to the Student" states:

> This brief review of the major problems we have found occurring in student papers is clearly incomplete. It is included here as a first reference. In some cases, these brief explanations and illustrations will correct your problem. But in many more cases you will have to go back to your instructor or to a text for a more complete explanation.

The Tests

The tests for each plan, with the addition of assigned topic, follow the scheme of the assignments preceding the exams. Rather than discuss all of the exams given, this section will concentrate on the final test or test 3. The course document clearly states what is expected of the student on the "A" plan on the final test:

> Under supervision (i.e., in the test center) in one sitting, you will read two assigned selections and write a 400-500 word referential paper comparing and contrasting the two selections. Your comparison/contrast must include the following: an interpretation of the meaning of each of the selections -- using textual support where possible; a discussion (with examples) of each author's aims and modes; and an evaluation of how effectively each author achieves his aim. In addition, in approximately 250 words, you will write an expressive, a literary, and/or a persuasive response to the selection.

The same selection is used for the "B" plan with a lower quota of words to be used for each of the required sections of writing. The "C" plan, however, is much less specific:

> Under supervision in one sitting, you will write a 300-500 word paper -- on one of several assigned topics -- with a stated primary and secondary aim, using two modes that you find most appropriate to the topic and your aims.

Because the "C" plan description of test 3 is less specific, it tends to give the students more latitude in choosing and writing the final test. It is evident that the instructors generally do not expect as much from the "C" plan students in terms of content and organization (but they do in terms of mechanics). Faculty members report that, in same cases, "A" level students who have problems with mechanics will drop down to "B" or "C" level only to find that their papers are evaluated by roughly the same standard for manuscript conventions.

The small sample of student papers analyzed in our research indicate that, for some part-time teachers at least, the correct use and identification of various aims and modes in a student's writing is not a criterion for acceptance at any grade level. Papers were accepted in which the student neither had the aim nor used the mode identified in the analysis of the paper. Thus, there seemed to be little attention paid to the compatibility between aim and mode or their appropriateness to the topic. One student's stated aim was "expression", while the stated mode was "referential/informative" -- which is not a "mode" at all, but an aim. These two aims are logically incompatible, the expressive demanding the use of the first person, the referential demanding an objective viewpoint, excluding the first person. In spite of this student's obvious lack of comprehension of the logical relations of the aims and modes, the instructor accepted his paper at the "A" level. Even papers on which the instructor had commented that the student had used an aim other than the one stated were accepted without revision.

In several of the classes observed, preparations for the final exam constituted the last two weeks of the classes during the semester. Consequently, a student could conceivably finish the semester two weeks ahead of schedule if he were completely finished with the required writing assignments and felt prepared to take the final test. Some instructors suggested that students review grammar, spelling, and punctuation in preparation for the final exam, but no preparation was done in class. They told the students that they would be required to identify other writers' aims and modes in various writing samples.

Once student papers are corrected, they are returned during the class period. Following the return of papers and during the class time, students are provided with time to study the instructor's comments and to confer with the instructor about their work. The conferring takes place in class, unless there is insufficient class time available. In that case, the instructor will either set up a time convenient to himself and the student or they will go directly to another classroom that is empty, the instructor's office space, the lounge or the hallway for their conference. Some students immediately go to the instructor to discuss their papers. These are usually "A" plan students. Some students -- frequently plan "C" selectors -- hold back, hoping some people will leave so that they can have some privacy in which to discuss their errors. Some students leave without talking with the instructor at all. However, if their papers have not been accepted, they must confer with him at some point.

The conferences are generally brief (two to three minutes) and directly related to the student's work. Instructors were observed explaining comments on papers or the rules of mechanics (such as the agreement of subject and verb, comma splices, etc.), the organization and development of an argument, word choice and stylistic matters. The basic strategy is to indicate to the students where they erred and (at times) to help them correct the papers.

When a student attempts to give a rationale for sentence structure, style, etc., rather than to simply accept the instructor's comment, there is an opportunity for verbal exchange between student and instructor, but this interaction is the exception. Usually students simply clarify the instructor's written comments, for example:

> What I meant needed to be explained was this sentence . . . no, that refers to vague pronouns. Do you know what vague pronouns are? . . . The check mark refers to style.

Concerning the assignments, one instructor commented to the class:

> On the surface the difference between papers seems to be based on length. However, the quality of the final paper is the real measure. It must be a good strong paper with few mechanical and stylistic errors.

Instructor corrections on student papers vary in format. At one extreme is the individual instructor who indicates, above a given error or in the margins, the type of error committed (instructor corrections are in brackets).

> -restrictive modifier
> The movie "Saturn Three" is a very good movie. It
> has Kirk Douglas and Farrah Fawcett in the leading
> roles. (Both of which have a well-established acting [Fg]
> career.) Farrah is also one of America's most beautiful
> l.c.
> sex symbols Which gives the movie an added touch.
> e
> The movie displayed a slight portion of nudity.
> (Which is just enough for most movie-goers.) It [Fg]
> has
> ~~had~~ gorry sceens in it.

At the other extreme is the instructor who simply indicates an error by a check in the margins, or a circle, or a circle around the error in the sentence; the student must determine the nature of the error.

> I do not mark the error where you made it. I mark it in the margin, indicating the type (spelling, etc.), but you must find it and correct it. It does not benefit you for me to mark the exact error. I will be available to help you if you need it.

The theme of being available to help is stressed throughout the English faculty, full- and part-time. However, the part-time faculty have little or no office space and must make do.

Resources Available to Students

Given the various problems faced by the writing students, what resources are available to him in attempting to navigate the Freshman English "C" plan? One often cited source of help is proofreading from family or friends. While proofreading might help students learn to pick out their own mistakes, too much assistance, such as rewriting passages, can get them through the paper writing requirement without learning enough to pass the tests. The English faculty were quite explicit concerning the function of the test, at least in part, being to insure that students are doing their own papers. Students who got help outside of school often did so from friends or acquaintances who were involved in teaching or writing. Students who did talk over their papers reported that it helped them to have someone read over them and talk about them.

The official resource for those who need help is the instructor for their class. Instructors advise students to come to see them if they have any problems. Of course, this can be a problem for part-time instructors who have to share a single office. Many instructors set aside work days on which students spend class time working on their papers with the instructor there and available to answer questions or offer assistance.

In some instances the in-class help sessions appeared to be threatening to students as the instructor would make verbal comments about the paper loudly enough for the whole class to hear. Some instructors' manner was threatening enough to dissuade students from seeking help, especially from instructors who tended to employ wry or sarcastic wit. Full-time faculty sometime ask students to come into their offices before or after class for individualized help. In one such meeting the student sat next to the instructor at his desk where they went over the student's paper line by line. The instructor went over the comments he had made, explaining them until he felt the student understood. The student, while not entirely relaxed, did not seem overly anxious or ill at ease in this situation. Conversations with this student later in the semester revealed that he felt good about the session and believed it helped him. The student exhibited a relatively high motivation level after the session for about two weeks, then became somewhat more erratic. The student's writing improved steadily throughout the semester according to the instructor, who attributed some of the student's success to a feeling that someone cared and was interested in his work. The instructor also attributed some of the improvement in this student's writing to his being tutored in the developmental studies laboratory, where he was referred after the initial session with the instructor. The instructor made specific comments on the student's papers, such as: "Next time you go to the developmental studies lab you should work on the use of the apostrophe." Full-time faculty members report referring an average of about three students from every class to developmental studies (D.S.) lab.

The D.S. Lab is under the supervision of the head of the D.S. department on each campus. On the north campus, where data for this section of this report was gathered, the D.S. Lab is housed in a standard sized classroom which has been divided into two areas separated by a partition of file cabinets and blackboards. In one area the D.S. reading and study skills classes are taught. The other area houses the D.S. Lab. It occupies a space of about fifteen by thirty feet almost every bit of which is occupied by carrells or filing cabinets. The lab was originally begun in 1976, a year after it was proposed by M.

The tutors who work in the Lab come from a variety of backgrounds. Many are graduate or undergraduate students at a four-year college who work part-time. Some are certified teachers who have finished school but do not have a full-time teaching position. Others also work as part-time instructors at the college. The tutors are hired by the Director of D.S. The director's criteria for hiring a tutor revolve around (1) his perception of whether or not the individual will be able to work well in the D.S. Lab situation which means work in close contact with a number of people, (2) as well as the applicant's tutoring and teaching experience and academic background. Most of the tutors tutor in at least three subject areas. The English tutors observed in the lab were a heterogeneous group, ranging in age from mid-20's to mid-50's and in background from kindergarten teacher to math student to Vietnamese immigrants. Of the five tutors in English, two also tutored in French and Spanish; one also tutored in math, calculus, and chemistry. Of the two who only tutored in English, one worked but four hours per week. All tutors worked less than 40 hours per week, most about twenty hours, one thirty-three hours.

The lab itself was open from 9:00 a.m. to 9:00 p.m. Monday through Thursday and from 9:00 a.m. to 12:00 noon on Friday. There was at least one English tutor in the lab each day until 7:00 p.m., and there were usually at least two tutors from 9:00 a.m. to 4:00 p.m. each day, except Friday.

Usually there are four or five tutors working with students in the lab during much of the day; there are D.S. classes in session on the other side of the room divider. The tutoring manual states, under the boldface heading, "NEVER," "1. Talk with other tutors while classes are in session in the Lab." Any conversation on the tutoring side of the partition could easily be heard on the classroom side. Tutors usually conversed in hushed tones, if at all. On the one occasion when two tutors began a conversation in normal tones, they were quickly quieted by the D.S. reading teacher. In general, the tutors observed kept to themselves when not tutoring, usually reading or studying.

Lab Routine

The door to the tutoring lab is kept open at all times. To the left of the door is a notebook with sign-in sheets with spaces for students' names and the area in which they wish to be tutored. Students who have been in the lab before generally walk in and sign the sheet. Students who have not been in the lab before generally walk in tentatively and stand just inside the door, looking around for clues as to what they should do next. The tutoring manual states, under the boldface heading "ALWAYS," "Greet every student who walks into the Lab -- even if you are working with another student." Most students were greeted relatively promptly. In a small number of instances, students who stood just inside the door with puzzled looks on their faces turned and left before being greeted. In these cases, the tutors near the door were busy and did not notice the students. Although the tutoring manual says, "Position yourself so that you can see the check-in table," there is not enough room, given the arrangement of the furniture, for everyone to sit where the door is visible. The developmental studies staff reported that they had tried using tables but that the noise and lack of privacy had made them unworkable. In most cases, a wait of several seconds would not be significant. However, in the case of students already anxious about their writing and uncertain of the nature of the Lab or its routine, anxiety produced by not knowing how to proceed could have a negative effect on the tutoring process. The administration appears to be aware of this, based on the emphasis placed on greeting students promptly. Several students interviewed in relation to Freshman English classes reported being nervous or hesitatn about showing their expressive papers to anyone, including their instructors. Students who seemed shy and quiet in class would often wait until everyone else had left the room after class to approach their instructor concerning their paper. In soem cases, these students would wait fifteen or twenty minutes until the researcher had left to begin their conversation. Although the number of such students is small, they often belong to the group whihc appear to need the most additional help with their writing assignments.

Developmental studies administrators feel that, given the conditions under which the lab must operate, students are greeted remarkably promptly. It is probably true that the only way to improve the performance of the developmental lab in this regard would be to hire someone as a receptionist. This would clearly be out of the question, given the limited funding available to the Lab.

Developmental studies administrators indicated that they had pressed the central administration of the college for more funds in order to expand the lab and separate it from the developmental reading and study skills classroom. They reported that after attempting to secure adequate funding, for two consecutive years, they felt a definite cooling in relations with some members of the central administration. They also felt it possible that their efforts had jeopardized the then current funding of the developmental studies program. However, their efforts seem to have paid off as plans are now being made to move the developmental lab into a room of its own.

Elements of Tutoring

Because of the arrangement of the room, it was only possible to directly observe one tutor at a time. While there were four or five tutors in the Lab at most times, there were generally two English tutors on hand. One of these also tutored in French and Spanish. The tutor observed directly most often was the English-only tutor. Based on these observations, conversations with other tutors, and participation by the researcher as a tutor, it is possible to make some general statements.

It is difficult to tutor individuals who have problems in organization and coherence in their writing. It is tempting as a tutor to simply rewrite what the student was trying to say and hope that the student understands why the tutor's arrangement is better than his own. Most students in the Lab see the tutors as experts and are ready to agree with the changes they might make whether they understand them or not. The tutors reported that there had been an English tutor who rewrote students' papers but that it was felt that his technique was inappropriate. The students quickly learned that they could go to him and have their papers rewritten. He was quickly swamped with tutees. Another difficulty in tutoring is explaining the writing assignments for Freshman English. In many cases the tutors have audited or taken the course themselves. However, the discourse theory content is new to most of them and difficult to explain. Asking students who had come in for help in mechanics or organization about the nature of the assignment revealed in almost every case that they had not understood what it was they were supposed to do. In these cases, tutoring on the form of the paper would not help with the underlying lack of understanding. It would seem from the responses of these students that some of the part-time Freshman English faculty are not successful in their attempts to explain the aims and modes to the students. When these students come to the Lab for tutoring their most immediate concern is with the mechanics and form of the paper. Most students and tutors seemed satisfied if the paper contained no mistakes in mechanics or syntax. Many students come into the Lab just before a paper is due to have it proofread by a tutor. These students are generally in a hurry and do not want to discuss the content or structure of their paper, just have it proofed for spelling, punctuation, and so forth.

All of these factors combine to push the orientation of the Lab toward concern with mechanics. In addition, the Freshman English faculty consider that the orientation of the D.S. Lab should be toward mechanics. They report that when they send students to the Lab who have problems in mechanics they expect to see improvement whereas when students go to the Lab for help with content and coherence their expectations are not as high. This emphasis on mechanics is implied in the way that many Freshman English teachers deal with students. If they have few problems with mechanics, they will tutor them themselves. If, however, they have major problems with mechanics, they will send them to the D.S. Lab for help. The D.S. administrators feel that this prejudice on the part of the Freshman English teachers is mistaken and unfortunate. Given the nature of the task, it is not possible to evaluate empirically the effectiveness of the tutoring Lab in dealing with problems of content and coherence. It is possible to say that most of the students interviewed who had been to the Lab felt that it had helped them, and that most Freshman English teachers felt the Lab did a good job in helping students with problems in mechanics.

However, a small group of students, about 8 to 12%, failed to show much progress, either in the regular classroom, or in the tutoring Lab. It was as though these students faced problems which were qualitatively different from the problems faced by other students.

During tutoring sessions in which the researcher served as tutor, some students showed a surprising lack of ability to grasp certain ideas. These were students who seemed to be of normal intelligence and were perceived to be competent in communicating verbally. Nonetheless, certain suggestions about how they might go about writing seemed to leave them confused or disinterested. Generally, students in tutoring reacted positively to suggestions; occasionally, they reacted negatively, but a few students gave no reaction except a passive blank look. Questioning the student often revealed that they could not repeat the gist of what had just been said, even though they had indicated that they understood. A possible explanation is that these students, for whatever reason, have not developed the ability to switch easily into a schema for writing. Often these students' writing is marked by a lack of clear reference and problems in contextualizing what is said. It is as if they had not changed completely from the schema of ordinary speech to that of written discourse. Something in the way some students characteristically tried to gloss over the problem or hurry on indicated that they were at least partially aware of the problem. But as with those exhibiting invisibly rule-based dialect interference, their recognition that they were not using standard form led to stilted and confused writing.

For example, R. came to the turoring lab for help with a Freshman English paper assignment. As she was working on the "B" contract level, she was expected to understand the mode and aim of her paper. In this case, the mode was to be classification and the aim was optional but was to be stated. In the initial tutoring session, R. revealed that she did not really understand the classification mode. The observer/tutor explained the mode of classification, making reference to the text and underlining key phrases in the student's text. Although R. indicated that she understood, it was clear that she was confused about something but could not articulate it. The next step was to help R. select a topic from the reader on which to write her paper. There was a selection on the use of four-letter words which she felt would make a good topic for a persuasive paper. The tutor talked to her for a few minutes about the possibilities for organizing such a paper, pointing out the possibilities for classification. R. indicated that she understood and left with the tutor feeling that the prospects for a good paper were rather good.

When R. returned after two days, the tutor was very surprised to find that the paper reflected almost nothing of what had been said in the previous session on the stimulus essay. The paper was modeled on the thesis and support form taught in the developmental studies classes. The first paragraph was a concise enumeration of what points would be made. There were the three supporting paragraphs and a brief conclusion. There were no spelling or punctuation errors and no run-on or fragmented sentences. There were two serious errors in syntax: "if the use of the bad four letter words are often used by some men..." Given the lack of other mechanical errors and rule-based dialect interference, these constructions could be due to invisibly rule-based dialect interference causing confusion in R.'s composing. The coherence problems are harder to specify given the difficulty of determining what the perception of coherence is based upon. The fourth paragraph contained the clearest example of a break in coherence:

> Finally, people, in their use of four-letter words, lack aesthetic sensitivity. They seem to ignore or be unaware of the aesthetic use of the English language. Furthermore, they are degrading themselves by using the bad four-letter words. Therefore, they miss the challenge of developing a more beautiful way of speaking.

The use of "Furthermore" and "Therefore" implies a logical or obvious connection between lack of aesthetic speech and degradation. However, these two concepts are not elements of enough schema in common to be connected without some elaboration and argumentation. (At least this is true in the schema systems of most Anglo English teachers.) It would seem that in R.'s schema system these elements are related, and she is assuming this relationship to all others who might read this paper. Seemingly, R. does not realize that she must make these relationships clear to those who may not share her specific schema system. The knowledge to do this would consist of another schema, to be put to use when writing in the key of school. This paper was approved for submission by one of the regular tutors and accepted by R.'s instructor.

It seems clear that, despite the genuine, determined and good faith effort put forth by the faculty and tutors involved in trying to help the student with marginal writing skills, institutional and social factors mediate against their efforts to solve some students' problems with coherency in writing.

A Theoretical Digression on Knowledge Frames and Writing

The question, "Why do some students exhibit lack of coherence in writing even though they can communicate orally?" will require much further work to answer with any real authority. However, in analyzing and thinking about the data, several themes began to emerge. This is not a theoretical construct which was elaborated *a priori* and then "tested" in the field. Rather, it is an explanation, derived from the empirical data and the literature on culture, cognition and writing in interaction. It is intended to serve as a stimulus for further work, not hypothesis testing but generating theories grounded in empirical data.

The thrust of the phenomenological tradition of sociology is that the relationships which obtain within a society provide a framework for understanding "objective" reality and that this framework is "objectivated" in language (See G. Bateson, 1972: 177-193; E. Goffman, 1974: 2-8). From the combination of this idea with Gregory Bateson's notion of metacommunicative frames, Erving Goffman derived the notions of "primary frames" and "keyings." Goffman introduces the notion of primary frameworks with:

> When an individual in our Western society recognizes a particular event, he tends, whatever else he does, to imply in his response (and in effect employ) one or more frameworks or schemata of interpretation of a kind that can be called primary. I say primary because application of such a framework or perspective

> is seen by those who apply it as not depending or harking back to some prior or 'original' interpretation; indeed a primary framework is one that is seen a rendering what would otherwise be a meaningless aspect of the scene into something that is meaningful

Within these two broad classes of frames there are others of various types and degrees of organization. The overall system of frames employed by a group constitutes an important aspect of their culture, functioning as a belief system. Goffman points out that "we can hardly glance at anything without applying a primary framework, thereby forming conjectures as to what occurred before and expectations of what is likely to happen now" (1974: 38). This description will sound familiar to students of the reading process as it closely resembles Keneth Goodman's description of what goes on in reading.

To this concept of primary framework, Goffman adds the motion of various "keys." A "key" is a "set of conventions by which a given activity, one already meaningful in terms of some primary framework, is transformed into something patterned on this activity but seen by the participants as something quite else" (1974: 43). During play, for example, the participants know that they are to systematically alter their interpretations of what is going on and behave accordingly until the cue is given that play has ended. Goffman discusses five types of keyings: 1) make believe, which includes playfulness, fantasy and drama, 2) contests, which includes sports, 3) ceremonials, 4) technical redoings which includes practice, demonstrations, replay, role-playing, and experiment, 5) regrounding, such as penance or apprenticeship where what is work to one may be training or demonstration of faith to another. To this list it might be possible to add a sixth key: schooling. In school, routine activities, such as reading and writing, which have various meanings in other situations, are uniformly transformed into something else: learning activities or sorting and selecting functions, depending upon one's viewpoint. Routine behavior on the part of individuals, such as talking, bodily movements, systematically paying attention are interpreted differently in school than out of school. What is interpreted as play in the schoolyard is interpreted as bad behavior in the schoolroom.

Part of the cueing involved in the transformation of keying is based on the characteristics of the discourse associated with that particular situation. In a note, Goffman acknowledges the work of sociolinguists such as Dell Hymes in this area. The sociolinguists have evolved several concepts related to the variations to be found in discourse patterns associated with different social scenes. The terms "variety" and "register" are used to indicate such differences. A "variety" is a style of discourse associated with a social group, such as Black English, Cajun Creole English, Lawyer English, etc. A "register" is a discourse style associated with a social situation, such as locker room speech, cocktail party speech, business letter vs. personal letter writing, etc. In all these instances variation is paradigmatic. The rules involved concern what elements can co-occur. Thus, the statements, "Your probability of success is extremely remote" 'cause ain' no way yo' gonna make it" becomes a joke by shifting from one set of co-occurrence rules to another. There is, of course, a variety called "academic English" of which this report is one example. (The previous sentence will serve as an example of how academic English differs from other forms.) Among and within each of these paradigmatically structured genre there can operate rules of alternation. These syntagmatic rules operate in the choice of which variety to use in a particular situation and also, at the level of performance, which item among those allowable to fill a particular slot will be chosen.

One more theoretical construct will be needed to attempt to account for the correlation between the perceived lack of coherence in writing and ethnic and/or socio-economic minority group status. The fields of cognitive science and discourse analysis make use of a concept variously referred to as frame, script, or schema theory. Basically, these theories postulate the existence of knowledge structures (the frame, script, or schema) which are utilized by individuals to interpret what is going on, either in their physical and social environment or in their participation in discourse. In this report the term schema will be used to encompass all these various theories, thereby obviating some important differences for the sake of clarity. Basically a schema is "a description of a complex object, situation, process or structure" (Winograd, 1977: 72). A schema is different from an ordinary definition in that it contains "a body of related knowledge" which is used when the schema is activated to make sense of a situation or object and respond appropriately. Various particular instances of objects or situations can be checked against the schema containing it and the differences between the schema and the particular instance noted. Where there is no conflict, the schematic description can be assured to pertain. Schemas* provide "a guide for structuring the processes of production and comprehension" (Winograd, 1977: 73). In comprehension, the individual assumes the incoming message to be made up of instances of known schema and attempts to identify them. The context and features of an utterance trigger the activation of certain schema which are then checked for fit against other parts of the utterance. In production, the individual uses the relevant schema as a program which contains the information needed to construct a particular utterance. There are three categories of schema used in understanding language, those related to the subject matter, those related to the situation in which the communication takes place, and those related to the standardized forms of discourse available to the participants.

It is hypothesized here that in making paradigmatic selections among discourse varieties, individuals are selectively activating various related knowledge schema and that systems of these schema are related to the various frames and keys discussed above. A primary framework would represent a broad schema system displaying many levels of hierarchical organization. A keying would involve the activation of a specific sub-set of schemas within the primary system which serves to modify or transpose the processes involved in the schemas affected.

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*The plural "schemas" is used to maintain the distinction between "schema" and "schemata" theories which differ in some respects.

It is further hypothesized that students from minority ethnic backgrounds possess schema systems which can be radically different in organization from the dominant group at any or all of these levels.

Sylvia Scribner (1977) makes a similar connection in her analysis of the responses to verbal reasoning problems by persons who belong to "traditional or pre-literate cultures." Traditional peoples consistently answer verbal reasoning problems incorrectly from the standpoint of the researcher. Scribner's point is that the traditional person, who has not been to school and learned the "logical genre" lacks the appropriate knowledge schema which would put to use by a schooled individual. Thus the traditional respondent frequently cannot assimilate the facts of the problem "correctly" or changes the facts to fit a pre-existing schema. The result is that it appears that the respondent is being illogical when in fact the answer is quite logical given the schema within which it originated. Scribner hypothesizes that the non-schooled subjects may not have schema systems which include the relevant contents or may not have received the cues which would normally elicit the genre.

So, also, it appears that some students who are not able to produce "coherent" writing have schema systems which are organized in ways which make it difficult for them to assimilate the co-occurrence rules of the written genre. This could be due to problems in overall primary frameworks such that a student has a difficult time shifting from his natural frames into the key of school. Or it could be that some students resist the implication inherent in school keying that many of their native schema and genres are inferior or even immoral. This could lead to the situation of having the students with the most verbal skill in their native genres appear to be the least skillful in school composition.

There are, in fact, examples from the present study which seem to bear out both of these hypotheses. The first is the very troublesome case of V. who demonstrated her verbal skill in classroom exchanges with her instructor. There is no doubt from the response of the class and instructor that V. was appreciated as one who was a legitimate opponent for the instructor in verbal dueling. This particular instructor was known for the pungency of his wit and wrote professionally. No other student was observed to match wits with him verbally. All this indicates in V. a high degree of verbal fluency. The aggressiveness of her speech, a standard feature of many Black speech events, may indicate a refusal or inability to recognize the school key and associated varieties of discourse. In her first test paper, when instructed to write a paragraph with two different aims on the topic of "babies," V. evidenced a low level of writing skill. The paper consists of two paragraphs, one labeled "expressive," the other "literary." They are both about sixty words long compared to one hundred words average for other papers in this class. This was the last sentence: "The father are very fond of their little sons but yet can be very protective of their little daughters." The "but yet" here seems to indicate reference to an interpretive schema which is not explicitly manifest. There is the implication of differential status accorded to baby boys and baby girls, but the reader is left to wonder if this is the case or if the "but yet" is simply a mistake in phrasing. Another sentence: "If it's a boy or a girl, the parents are still very happy," raises a similar question. The use of "if" and "still" leave the reader in doubt as to how to interpret both words. Again there seems to be reference to something the reader is not quite let in on. The implication (inference) that "it" could be something other than a boy or a girl and that the parents would be more pleased if that were the case is surely unintentional. These problems only become remarkable when it is recalled that in her verbal behavior V. did nothing unintentionally and was very much in command. Although there is some evidence of dialect interference, such as dropped s's and -ed's, the main problem here seems to revolve around deixis and structure.

An extreme example of problems with deixis is to be found in the writing of M., a Black female about 40 years old. To quote from M.'s test two:

> Physical Appearance:
>
> Physical nature bodily as opposed to mental and moral. Appeance to coming in sight. semblance outward look as show. likeness personal presence.
>
> Then you get yourself together and realize what you want. A good personality or not. Keep yourself clean from bottom to top. In other words take a bath and please use deorodrant.

Clearly this writing was not produced in accordance with the schema which normally insures reciprocity of perspectives in written discourse. This person had been out of school since graduating from a segregated high school. After reading through the paper several times it becomes clear that the first paragraph is a definition of the two words "physical" and "appearance." The first sentence of the second paragraph seems to be referring to something which the reader has missed. It is as though the topic "physical appearance" activated a system of schema which the writer is assuming the reader shares. What seems to be missing is the productive schema which contains the rules for insuring reciprocity given the lack of contextual clues in written discourse. In rewriting this paper, M. prefaced the first paragraph with: "This is the meaning of each word," then indented the definition. In the second paragraph she changed the fragment, "A good personality or not." to "A good personality help you in life." Although this is some improvement, it does not clear up the problem of the missing antecedent for "Then" or the presumed connection between personality and body odor. The writer is still making reference to schema without cueing the reader sufficiently to allow activation of the same schema or even the production of a hypothetical schema modeled on the writer's implications.

M. reported in an interview that she understood the aims and modes after they were explained to her by the instructor. When asked, "Do you think your writing skills have improved since you took the course?" she responded, "Very much so." However, in a follow-up interview, her instructor reported that she did not show much improvement over the semester. M. reported going to the Developmental Studies tutoring lab and stated that she felt they had been helpful. However, when asked what subjects were covered, she said, "...the subject we were talking about (writing). It had, well it had something to do with it, but not all of it." It would seem that the discrepancy between the approach of developmental studies tutors and the Freshman English instructor left M. somewhat confused. Lacking the appropriate schema, she was unable to assimilate what was being told to her.

If it is the case that schemas are programmatic, oriented to process, rather than declarative, oriented to product (see Winograd, 1975: 73), it is possible that the Freshman English curriculum orientation to product, dictated by the modes approach, mediates against the success of students with problems involving activation and implementation of schemas used in writing. To correct this condition would necessitate putting more emphasis on the processes through which a writer is able to capture ideas and translate them into text.

Thus far this report has attempted to present a description of the Freshman English program which describes both the curriculum and the pedagogy associated with the course in a way which both gives the objective features of its structure and conveys the dynamics of the processes which came together with this course as a focus. The description has not moved beyond the context of the college because there has been almost no empirical data collected which would allow such a description. However, if this report is to have general significance it must deal with the question: "So what?" In order to interpret the Freshman English course in relation to a larger context, it is necessary to leave the realm of description and move to theory. Specifically, this section is addressed to questions concerning the functions of the course in relation to the society in general. These questinos include the ways in which the content of the course has effects on the lives of students outside the classroom and the role of the course in reproducing or failing to reproduce the existing social order.

In the words of a Freshman English student:

> There's a lot of string-pulling in business, and there's lots of guys that are very educated that'll do it to you if you don't know what you're doing out there -- that's the people that's gonna run over the people that can't read and write.

It is quite clear that one of the intentions of the course is to give students the ability to use language to their own advantage and to resist being taken advantage of by those who use the language. The success of the course in this regard is hinted at in the following quotations from student interviews:

> Yeah, it gave me an insight. It gave me an insight on things that I've read that I've never realized what -- that they were trying to persuade me or anything like that...Now, when I read an article in the paper, now I can look at it and say, "Well, what are they trying to do?" Now I started reading things that I normally don't read, editorials, you know... just to find out how they're writing, and so it kind of broadens, I guess, my reading, makes me look at things that I never really looked at before.

Other students also seemed to be aware of the persuasive aim for the first time:

> It was the English class...I find it interesting...

> 'cause I've read a lot. A lot of things I didn't know...like referential and expressive...and now I'm reading this and it's that and that....Now I can read something and say, "Yeah, those people are just trying to persuade...."

Other students comment about the effects of the course on their writing:

> I used to just write and didn't know what I was writing. I didn't have a set pattern of what I was saying; I would just ramble on...I think it helped in that way. ...This one (the student text on Kinneavy) showed me the elements of writing and stuff and that helped a lot. It makes writing -- not easier, I don't know how to say it. Yes, it has helped me, you know, in understanding the ways of writing -- the ways of influencing -- how to attain -- reach these aims.

And even one student who saw no improvement in his own writing skills observed some communications skills influence from the curriculum:

> Interviewer: What do you think about the...aims and modes and all of that?
> Student: I can see where it can be used.
> Interviewer: Do you think that your writing has improved in the course?
> Student: No...But I suppose that I could read an article and know whether it's referential or not.

How useful these new-found skills are in the day-to-day affairs of the students or, more specifically, how useful they are in the students' attempts to climb the metaphorical social ladder is not known. To answer this question would require a full scale longitudinal study of large proportions. Clearly, the instructors believe that the acquisition of these skills results in positive effects on student lives; this is the rationale for much of the course. But the wide variations in student performance in the course would point to a variety of effects, dependent on a number of variables which could only be spelled out in the light of further ethnographic research.

On the question of the reporduction of society, several things can be said. For one, the beliefs of several of the full-time faculty members reflect the debates on school reform which were being carried on quite visibly during the late 1960's and early 1970's when many of the staff were in school themselves. One consistent theme in the arguments in favor of school reform was that the language curriculum served to deny access to higher education to those persons who were born into the working and lower classes on the basis of the variety of language they learned at home.(See the work of W. Labov, 1969, 1970). As mentioned above, the authors of the text clearly endorse the position that students have a right to their own forms of language. This position does not, however, rule out the possibility of evaluating students on the basis of the language variety with which they enter the classroom, even while guaranteeing their right to speak it. The full-time faculty seemed to be aware of this problem in varying degrees. To some, one of the prime motivations for coming to the community college was the opportunity "to get away from places where there was little or no attempt to teach anyone how to do what it was they were being graded on in the freshman composition course."

Others seemed less acutely aware of this problem but recognized it as a issue when the subject was broached. Their responses would indicate that what kept them from a clear awareness of the problem was less a matter of exposure than of the traditions of the English teaching profession. These traditions would seem to rest on the assumption that it is legitimate to evaluate a person on the basis of how closely his or her language use fits the pattern valued by the English teacher. Operating under this assumption it is reasonable to assign low grades to individuals on the basis of their grammar and syntax. Since it is the grammar and syntax of the upper classes which is valued, members of the lower classes can expect to be given lower grades. This is so even though the language variety they use cannot be demonstrated to be of any less value by any objective criteria. (See Labov, 1969, 1971). For example, the following writing samples were collected and evaluated by English teachers who did not teach Freshman English:

> A. (Town) is a very nice place to live. I have stayed here all my life. There has been very nice times here in (town). The weather for now is great. My mother has told me that (town) has grown a lots since her childhood. I hope that when my children grow up there will still be beautiful scenery around. For the people in (town) some or good and some or lousy.
>
> B. My name is Bobbie Jean Smith, and I am graduating from the university in August 1980. My major is specializing in the Natural Sciences department under clothing and textiles. In the future I hope to find a job in or dealing with fashion design, buyer, or an area managership. I do like to travel and meet people which proves to be an exciting career in itself. I feel that what ever I seek in the future will be challenging and interesting. I also feel the world is full of many opportunities, and one can seek to fulfil whatever dreams he wishes too. Hopefully, by the end of the summer I will have interviewed with many different companies and have found the right job that the future holds for me. I do hope that the world will be in a better economic situation, where people will not have to struggle to seek their dreams and goals. Maybe, we will seek a President that will straighten out the many pressures of the world. I do feel that no matter what everyone will cope and learn how to survive in today's world.

The student who produced sample A received recommendations to take the first developmental studies writing course. The student who produced sample B received no recommendation for developmental studies. Clearly, these recommendations were made on the basis of features which are related to differing language varieties. If manuscript conventions are ignored and only content is considered, it is obvious that the author's message is much more clearly conveyed in sample A than in sample B. Sample A is focused, concise and to the point, whereas sample B is unfocused and wanders especially at the end which seems to have been tacked on to satisfy the length requirement. The most obvious thing about these samples is that one was produced by a person who was fluent in the valued academic style (106 credit hours) while the other was produced by a person belonging to an ethnic minority.

Given that this type of evaluation is a normal, legitimized way of proceeding in typical English classes, the question is, "What is the practice in the composition course under investigation?" The answer is necessarily partial. It was not possible to observe the full range of part-time teachers teaching Freshman English. The only group for which it was possible to gather adequate data on this question was the full-time faculty. Inferences can be drawn from grading protocols which indicate that, for the full-time faculty, evaluation is carried out in a manner more consistent with their stated position on language varieties than was evidenced in the examples above. When asked to evaluate an example of student writing which contained both mechanical and coherence problems (here "coherence problems" means that it was difficult to understand what the author was trying to say due to unconnected and wandering sentences), these instructors paid little attention to the mechanical problems and concentrated instead on coherence. One instructor made no corrections or marks on the paper but instead wrote a note asking the student to come in for a conference. He explained the lack of marking by saying that the student's coherence problems were more important and that he was afraid that emphasis on mechanics would detract from concern with coherence. Another of the curriculum designers did mark mechanical errors but only after reading through the paper twice, and even then in the manner of someone who is doodling while pondering an important question. After thinking for several moments, he wrote extensive marginal comments indicating ways in which he thought the student could make the paper more coherent. He also indicated that he would ask the student to come in for a conference. In both cases, these instructors included positive comments about the paper, even though it was obviously not up to their standards for acceptance.

Another facet of the question of the reproduction concerns the unofficial but acknowledged and implied intent of the course to "broaden" the students in the sense of expanding frames of reference, of making them more "aware." This intention is based on the belief held by the full-time faculty that the development of rhetorical skill involves more than just learning to write well. The full-time faculty feel that learning to present ideas in a way that is clear to others involves the development of the capacity to go beyond personal interests, to be able to put one's self in another's shoes and thereby develop a sense that transcends the narrow interests of the individual. According to this tradition, which is widespread in varying strengths, and guises among English teachers the development of this sense makes the individual a better person by allowing him or her to gain some measure of insight into the universal principles which guide the proper organization of everything involving man and nature. In the Freshman English course this intention has been played down, especially in comparison with courses which rely on models from the classics of literature for student emulation.

One reason for the lack of emphasis on this aspect of the course is that, although the faculty carry the tradition in which these ideas are based, they are not fully aware, for the most part, of these ideas. This was evidenced in the difficulty most of them had in putting into words the intentions of the course in this regard. Although they sought to explain why they thought the course could improve individuals, only rarely could they go beyond the beliefs already mentioned concerning the development of thinking and communication skills. A typical response was, "Well, you know, the whole idea about the liberal arts and developing the whole person."

Another reason for the lack of emphasis on the development of the humanistic "sense" is that it is just this sort of idealist monism which often serves as the rationale for courses which are ultimately repressive. When the intent to develop this sense, whether an objective fact or not, is turned into an excuse for evaluation of student performance based on the criteria implied, the course begins to reproduce the existing social order, because the criteria implied are always those which already match the varieties of the upper classes. For these reasons, the humanistic goals of the faculty have been made secondary to the more utilitarian goals enumerated above. Some members of the faculty are acutely aware of this problem.

Some members of the faculty are acutely aware of the problems associated with the evaluation of students based on the standard of the variety of language used by the members of the upper classes. However, they are at a loss to devise a way to circumvent this problem entirely. They hope that by providing flexibility and opportunities for revision together with the non-graded writing assignments they are able to counter the more pernicious effects of evaluation. This hope is based on the belief that provision of more time will allow students to "catch up" with those who are already at an adequate level of proficiency. Underlying this hope is the assumption that the evaluation of student writing and the assignment of grades on the basis of an external standard is a legitimate function of the English composition course. This assumption is at the base of many practices in most pedagogical systems, but is not a logical consequence of the nature of learning unless it is admitted that pedagogic action is a legitimate form of symbolic violence (see P. Bourdiem, 1977). In other words, there is nothing about the learning process that requires that a student be evaluated against a standard. Only when the social function of the course is to maintain an arbitrary cultural standard as the standard is it necessary to impose an external evaluational criteria on student learning. Quotes from interviews with M. given in the section on the development of the curriculum reveal his concern with this issue. As he said, "Why give them a grade at all?" However, M. was not able to maintain control of the curriculum. There has been a steady movement away from the most radical elements of the early course. Although these moves are accounted for by reference to the demands of "the real world," the fact is that they are the result of the demands of a very specific world.

Bibliography

Bateson, Gregory. STEPS TO AN ECOLOGY OF MIND. New York: Ballentine Books, 1972.

Bauman, Richard and Sherzer, Joel, eds. EXPLORATIONS IN THE ETHNOGRAPHY OF SPEAKING. London: Cambridge University Press, 1974.

Cazden, Courtney, Vera P. John and Dell Hymes, eds. FUNCTIONS OF LANGUAGE IN THE CLASSROOM. New York: Teachers College Press, 1972.

Goffman, Erving. FRAME ANALYSIS. New York: Harper Colophon Books, 1974

Freedle, Roy O., ed. DISCOURSE PRODUCTION AND COMPREHENSION. Norwood, New Jersey: Ablex, 1977.

Kinneavy, James. A THEORY OF DISCOURSE. New York: W. W. Norton and Company, 1971.

Johnson-Laird, P. N. and P. C. Wason, eds. THINKING: READINGS IN COGNITIVE SCIENCE. London: Cambridge University Press, 1977.

Just, Marcel and Patricia Carpenter, eds. COGNITIVE PROCESSES IN COMPREHENSION. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1977.

Schank, Roger C. and Robert P. Ableson. "Scripts, Plans, and Knowledge," in P. Johnson-Laird and P. Wason, eds, THINKING: READINGS IN COGNITIVE SCIENCE. London: Cambridge University Press, 1977.

Scribner, Sylvia, "Modes of Thinking and Ways of Speaking," in Roy O. Freedle, ed., DISCOURSE PRODUCTION AND COMPREHENSION. Norwood, N. J.: Ablex, 1977.

Winograd, Terry. "A Framework for Understanding Discourse," in M. Just and P. Carpenter, eds., COGNITIVE PROCESSES IN COMPREHENSION. Hilsdale, New Jersey: Lawrence Erlbaum Associates, 1977.

TECHNICAL WRITING

Overview

Technical Writing is a course in the English program which is required in programs of study for an Associate of Applied Science degree in: Accounting, Air Conditioning and Refrigeration, Automotive Technology, Building Trades, Business Management, Data Processing, Drafting and Design Technology, Fire Protection Technology, Human Services, and Insurance, Land Surveying Technology, Mid-Management, Offset Printing and Welding. Freshman English is the prerequisite for Technical Report Writing; together these courses meet the total English requirement for the above-listed vocational/technical programs.

Technical Writing is only generally described here. Its prerequisite, included in this study, is Freshman English; we chose to continue to investigate a major research issue of intra- and inter-program coherence. Two Technical Writing courses were observed during one summer semester and interviews conducted with the instructors and five students; a third Technical Writing instructor was interviewed about major research issues -- knowledge of prerequisites, relationships to program majors requiring Technical Writing, and student population and abilities to complete assigned work.

Intra-Program Coherence

Two instructors, in interview and by observation, were unclear as to the specific prerequisites. In one instance, the instructor indicated to the class, on the first day, that Freshman English I and II (two semesters of English) were prerequisites for the course; the class corrected the error. In another, the instructor, in interview, was surprised to learn of a prerequisite and had no knowledge of routes by which students would enter the course: "I'm not sure because they haven't passed around any prerequisite sheets...and I'm sure the counselors have no idea what's in the course, you know someone in another field."

In addition to the discrepancies that existed among instructors as to knowledge of prerequisites, there was further evidence of some slack in intra-program coherence: there were few precautions taken to guard against student enrollment in the writing course without having taken Freshman English I. In fact, many students appeared to be taking this course at different points along their degree routes, with no concern for the sequencing other than meeting all degree course requirements sometime before graduation (whether that graduation is at the research site or at a university).

Further, a major assignment -- that of writing a deductive paragraph and an inductive paragraph, given at the beginning of the semester, and (in the instructor's opinions) responsible for a major share of the attrition early in the semester can be linked to no other former experiences, technical writing experiences, or vocational/technical demands. The inductive paragraph is more difficult to write than is a deductive (according to the instructors); even the author of the text comments that students likely will use an inductive paragraph only infrequently (the insinuation is that inductive paragraphs are rarely used in technical writing). In fact, the term inductive and the paragraph type are not mentioned again in the text. In addition, it is clear to an observer that no preparation for paragraph writing is made at all in the technical writing course, and to begin the work with this demand appears to be worthy of further consideration. Freshman English does not require the writing of an inductive paragraph, further drawing out questions about its relative value to the course -- particularly in light of the repercussions it appears to have on students.

Inter-Program Coherence

The course document for Technical Writing defined as the purpose of the course: "...to give the student the necessary tools to enable him to handle competently any technical communication he might encounter in a job. Ability to write a clear, concise report which takes the audience into consideration, and skill in oral communication will lead to advancement into one's chosen field." These aims were to be accomplished through the writing of a series of papers and the presentation of one or more oral reports.

And while there was some indication from the purpose statement and additional evidence from the course's position in the technical/vocational prerequisites, there was mixed opinion among the instructors as to the necessity of a student's decision upon a vocational goal or interest. One instructor announced to class on the first day that "unless they had a field that they were interested in and were wanting to do some thinking...about...that they probably would not get very much from...class." This same instructor noted in interview that

> ...every assignment from the very beginning is job-related. And the people that don't have a field or a job or something they're interested in usually drop out, in the beginning.

But yet another instructor did not perceive that a serious interest in a specific field of work was a prerequisite for positive course work.

Student Population

Student population for these courses was characterized by a more youthful group than is typical of the national community college student (28). Each observed class reflected an average age of 23; the ethnic mix was heavily Anglo, about 10% Hispanic, and about 3% Black. Because the course transfers to local universities and colleges, many of the students were co-enrolled at a nearby university or were preparing to enter there in the next few semesters.

Instructors noted that attrition at local colleges and universities, where some of the part-time instructors taught, was normally immediate -- just after the first day or so and course goals, objectives, and assignments had been discussed. At the research sites, however, faculty perceptions were that personal and financial demands, in combination -- often times -- with feelings about inabilities to do the work were the primary causes of attrition. (Our own work with attrition supported this hypothesis.)

Attrition was a recognized problem; some proactive efforts to combat it were evident. Faculty mentioned that staff development workshops provided strategies for motivating students -- e.g., learning students' names and calling them at home when they missed class to tell them that they were missed and to give them their assignments were positive motivational strategies. But when students were frequently absent, instructors used other tactics to encourage return to class: "I'd rather talk to them about the time they've already invested in the course, the benefits they can get from..." remaining in the course. Another noted: "I'll tell them that if they don't come back to class, I'll drop them. And they know I'm not blind. That helps a lot." We assume that it only "helps" those students who have other reasons for missing class than deciding to attempt the course at a later date or with another instructor (see Attrition chapter).

Instructors commented that they believed most of the students who are unsuccessful in this course are characterized by frequent absences and/or impatience. Our observations and interviews, however, noted that many students had never written a research paper, did not have the skills of referencing materials, had not taken the Freshman English course; these former experiences should have been contributing factors to the previously-mentioned characteristics. The instructors noted that during the summer session, when the course material was highly compressed, the students had the most difficulty with the assigned work. More often, the instructors mentioned that students lacked motivation and persistence, that the material was not too difficult. However, instructors did cite the incredible range of abilities in classes as further evidence of multiple problematic factors in attrition. Given the requirements for enrollment -- successfully meeting prerequisites and attaining sophomore level standing -- these incredible ranges are curious.

There were constant reminders of approaching deadlines for meeting course requirements, reminders to use appropriate and/or supplemental materials to meet standard writing formats; instructors noted that these reminders were imperative for combatting the impatience and lack of persistence demonstrated by the students. They further demonstrated their interest in the students by being available to students (office hours were announced and some instructors offered students their home numbers), by encouraging students to express any dissatisfactions with their recorded grades, by making the effort to learn the names of students and about their career interests, and by designing student-interest examples for the illustration of course concepts and assignments.

There was a vague sense that student reading and writing abilities had declined over the last several years and that side ranges of abilities were evident in each class.

Instructor perceptions were that "very few of the people who stay with technical writing have serious writing problems."
Presently, there are efforts to refer students with writing problems to the developmental writing lab; instructors note that when the students are motivated enough to go to the lab, they "generally improve." However, there are no mechanisms currently in place that are used to expedite student referrals and guarantee that instructors will be informed of their attendance and progress.

Instructors noted, specifically, that older students produced better work and worked harder than the more youthful groups; their ability primarily was attributed to "maturity and better background at the elementary and high school level 'back then'." There was no clear faculty perception that ethnicity affected demonstrated ability. One instructor did note that "Hispanics appear to have a work ethic" that was "sort of akin to the 19th century Anglo one, and they believe that if they work very, very hard they can find a place in the mainstream culture and make it."

By and large, reasons for attrition were perceived as ability-generated. The college "...is an open admissions school and...it offers the status of college education. And we attract a lot of people who... are really not capable of finishing the work...I'm sure it's a very frustrating experience." Again, it is curious that the inabilities that they identify are so pronounced _if_ it is true that students have completed the prerequisites for the course or have completed the hours that would provide them with sophomore level status. It would appear that this evidence would provide the impetus to further investigate _how_ these students arrived in that class.

Course Requirements

The course was designed as a workload and grade contracting system: students contract with the instructor for the grade they want. The Unit Objectives necessary for the minimal acceptable workload (i.e., for a grade of "C" included: assignments stressing the use of deductive vs. inductive reasoning; technical definition; the writing of instructions, letters of inquiry, and progress reports; using graphic illustrations and the writing of technical reports. The oral requirement necessitates the presentation of a 10-15 minute speech on a topic of general interest to a specific group (e.g., the Jaycees or the PTA).

In order to receive a grade of "B," the "C" requirements must be fulfilled plus a 20-minute talk or demonstration to the class on some aspect of the student's current job or field of study must be presented.

Requirements for an "A" included the writing of a 500-700 word article on a subject chosen by the student which followed the format of a trade journal or newsletter from the student's area of interest. In addition, "B" and "C" level requirements must be met.

The student was eligible to receive one or two other grade classifications, "I" (Incomplete) or "W" (Withdraw) if he did not complete a minimum of five of the unit objectives (basic techniques, technical letters, informal reports, oral reporting and illustrations). If the student did not complete at least Unit 5 by the last day to withdraw, the handout indicated that he would be dropped from the course and receive a "W." In this instance, then, students who were doing unsatisfactory work would be placed in the same category as those students who had left the course for other reasons and/or their own volition. (This indefinite categorization made data analysis in the Attrition-Retention study especially difficult.) If at least Unit 5 had been completed by the last day to withdraw but the "C" level requirements had not been completed, the student was eligible for an "I." (Instructors had grave concerns that students would not complete the work, that the "I" grade would then be changed to an "F." We found that the change was effected inconsistently; some "I's" remained on student transcripts for several semesters.)

The syllabus for this course indicated a uniformity in content and structure with only a few areas subject to variation: e.g., one instructor manipulated the length of speeches to be presented. His rationale for shortening the actual presentation was that a brief speech must be better organized since the time is shortened, the effort to prepare the outline is not reduced by the presentation's brevity, and the experience of speaking before a group is not diminished by length of time on one's feet. The requirement that the department mandated was for the provision of training in speaking skills, not specifically in speech-making; however, it was decided that this process would offer students some speaking time before an audience. We noted that rarely did students participate orally in class without direct prompting from instructors; therefore, it would be possible, other than through this specific course demand, that students would ever speak at all, and if then only in brief responses to direct questions. While instructors prompted students to ask questions -- some more directly than others by calling upon students by name or tossing an "answer" ball to individual students (student must respond if he catches the ball tossed directly to him by the instructor), interaction was not spontaneous or heavy.

The syllabus was designed with input from other instructors who would most likely be receiving students in their vocational/technical classes and from members of various vocational advisory boards (familiar with on-the-job demands). For example, a request from the (job) Placement Officer, supported by other vocational instructors, formed the basis for the oral presentation requirement.

Criteria were general for all written work and pertained to acceptability; criteria for specific papers pertained to content. Individual assignments were not graded. Rather, each assignment was marked with "accepted," "revise," or "rewrite." To be accepted, the paper must both fulfill the objectives of the assignment and be free of grammatical, spelling and punctuation errors. Revision involved a process of consultation with the instructor (or referral to the text) to identify the problem and effect a solution, and then correcting the problem in the paper and re-submitting it. A rewrite was required when the instructor deemed the paper totally unacceptable either because of gross technical errors or a failure to meet the objectives of the assignment. The instructors, presumably, wished to prevent "rush jobs" and warned students that only one paper could be submitted at a time.

Text

The textbook required for the course was used as a lecture guide as well. The readability level was determined to be tenth grade; although the instructors did not know exactly the reading grade level, they had some ideas that it was relatively simple to read. One instructor noted that many students had complained that the text was "too easy"; he translated the student's message as "not helpful." We propose that the student(s) may have been reacting to a common assumption about textbooks -- that they are not easy to read, are not "supposed" to be understood, and that "too easy" simply characterized the lack of difficulty the student had negotiating the text. On the other hand, the instructor may have had other comments that students could not find useful information in the text to aid them in completing their assignments; he did not make this distinction clear, however, and we did not pursue it.

Another instructor did not value it as a text although she believed it to be an improvement over the prior selection. (As a part-time instructor she felt that she had some control over its selection as she had attended task force meetings to make the selection and currently has a suggestion submitted for next year's choice. While part-time instructors did not have control over text selection, typically, the small number of technical writing instructors and the ratio of 2-1 to full-time, may have provided the part-time status more leverage than is granted in other program areas.) In order to improve chances for students to profit by reading the present text, this instructor had annotated it in the syllabus in order to assist students in noting important areas and most valuable passages in the text. A typical assignment, in the syllabus, looked like this:

> Write a technical outline using either the Roman numeral or decimal form. The outline should have at least five major sections, and at least two of the sections should go to the third level of detail (Sec. 4.1, pp. 51-57).

The students were to prepare for the assignment on outlining by reading the text passages indicated. The following class day, the instructor walked the class through planning and developing an outline (using students' topical suggestions). Then students proceeded to write their individual outlines, due the following class day.

One instructor offered this comment: "There's really very little where they have to read in this course. I mean, it would help if they would read the textbook at times." From observations and interviews, it was apparent that indeed students could perform the activities without reading the text; in fact, several students mentioned how delighted they were that the instructor for their class outlined the material so well on the board during the class session that they were able to grasp all of the material without reading at all. That is, the text, while guiding the lecture could be circumvented by the students or used only as a support system, not a primary learning tool.

Instructors admitted to no prior knowledge of reading abilities of students in their classes. Yet the readability tests on instructor handouts indicated a wide range of reading levels. The department syllabus for course objectives was written at the twelfth grade level; handouts written by individual instructors -- how grades are achieved and class policies administered -- were consistently written at the eighth grade level (see Appendix A for readability analysis). They all agreed that good reading skills were important in their classes but were not convinced that forewarning of the reading levels of their students would give them particularly useful information about an individual student's performance, that the developmental reading staff would most likely make the best use of that knowledge once they (the technical writing staff) had identified reading problems in their students. There was no "treating" the reading problem, except for referring students to the reading lab. One instructor noted that she did not have a clear picture of the relationship between the student's reading ability and negotiation of the course material and activities. In observed classes, reading ability was not sharply defined by specific demand. Our observations would indicate that at least text reading was not a heavy requirement.

The instructors linked good reading and writing experiences in school to success in school and linked both to the willingness to return to an educational environment. They noted that their older students were more willing to work hard and complete all assignments, including the reading assignments, than were younger students.

Instructional Strategies

Writing assignments were returned to students promptly; as one instructor noted: a delay of even one day in returning the paper "dulls enthusiasm" that was built during the writing activity. Assignments were due almost daily, so practice occurred regularly and often. Dictionary use was encouraged and frequently observed; the instructors had dictionaries available for student use. Style manuals, for writing the compositions, were available also, but were less frequently observed in use.

Instructional strategies generally involved instructor-student question-and-answer activities and some student group work. Students were encouraged to support beliefs and/or answers to instructor-initiated questions. Typical class activities included brief periods of lecture at the beginning of the class period, followed by work sessions. Lectures were typically well-organized, with the use of the blackboard to highlight major points of interest and/or importance. The students were usually attentive, taking notes from the board directly, rather than taking notes from the lecture itself. Rarely was student note-taking observed when it was not teacher-initiated. Typically, instructors encouraged student responses: answers were regarded as important because they were evidence of student participation. Correct answers were encouraged by continued questioning and instructor-initiated leading questions. The feedback from students indicated that they approved of these teaching styles. One instructor's conventional style was appreciated for its thoroughness and the fact that the instructor outlined most of the important points on the board (as determined by interview and analyses of homework assignments). More animated instructional strategies were regarded as interesting showmanship and as attention-holding devices.

Other strategies included instruction by example. Some students were given access to papers written by the instructor's former students; at the appropriate times, papers that (in the instructor's opinion) were particularly illustrative of the assignment under discussion were reproduced and distributed to the class. Instructor-directed evaluations of these papers provided feedback about these models.

While library skills were expected, by course description, in completion of course requirements, instructor attention to library skill development or to actual library work was inconsistent. One instructor commented in a class lecture: "...investigate sources of information other than your own personal knowledge..." He questioned students about their confidence in ability to use the college library; the class held only about six or seven students (from a class of 22) who acknowledged having that confidence. While the instructor did not know if any library tours were available, he encouraged students to "get together with others who know how to use it," made some brief explanations about the card catalog and reference section, and suggested that students who still had questions about the library should come see him about them.

Another instructor noted that while two weeks were allowed on the schedule for library work toward the formal report, it was common knowledge that students typically did not write their reports from sources in the library's collection; rather, they did their writing from materials gleaned from their places of work, from other students, or from visits to potential work sites. There appeared to be no particular concern that the library time was re-routed; the intent -- to use the library -- and the actuality -- gathering sources from other areas -- were at odds when other sources were acceptable for completing the assignment.

One instructor noted that the library did not always have adequate materials in its collection for student work there to be of the most benefit; the overall perception was that library work, per se, was not a high priority. (These perceptions contributed to the project's overwhelming evidence that the development of library skills were not actively encouraged as instructors rarely included important library activities in their assignments; and if they did include them, they typically did not determine that the library work had been done.)

Writing activities were considered, by instructors, to be most productive when they were clearly defined and structured: instructors provided direction as to topic, length, and evaluation criteria. Students frequently were led to decisions about topics within the general classroom discussion -- that is, they typically were not allowed to choose a topic without teacher input and direction.

The majority of the students had to revise their papers frequently. Instructors complained that students did not know how to use references, make footnotes, or annotate references within their compositions. In addition , students appeared to have difficulty synthesizing what various source materials had said and resorted to stringing the comments one after the other.

Discussion

The Technical Writing courses were important to this study as their investigation provided data about intra- and inter-program coherence. While the syllabus had been written from input of a general nature from other vocational instructors, the specific applications of interest were drawn out infrequently. There was no observed gathering of information about student majors or outlining linkages between former courses and Technical Writing or between Technical Writing/concurrent courses. There were wide variations in instructors' assumptions of the relationships of student involvement in a vocational/technical area and his success in the writing course.

There were obscure links between Technical Writing and its prerequisite, Freshman English. While it was possible that many of the students had taken Freshman English at this research site and had used the "aims" and "modes" strategy for writing compositions, the references were not used to draw connections between the writing demands in technical writing and similar demands in the former course. Many of the students had not taken Freshman English at this research site, or in the college system, but rather at another two or four-year institution. What of these students if the linkages had been drawn more clearly?

Similarly, there were obscure links between any prior preparation and Technical Writing. It was mentioned earlier that many of the students had not written research papers and/or could not make proper use of reference materials. Perhaps the prerequisite did not prepare the student adequately, or the variation among the instruction of the prerequisites is too dramatic to assume training, or the students were able to enroll without the prerequisite.

CHAPTER VII
LITERACY AND OCCUPATION: A STUDY OF LITERACY AS A JOB SKILL

Sources of Data

This section reports on a study of the office occupations program at one of the site colleges. Approximately 60 class sessions were observed over a period of one semester (a long semester), in the classrooms of four office occupations instructors. Other courses were observed briefly and abandoned because of time constraints and tenuous relevance to the aims of the research. Five instructors were interviewed formally on tape, one interviewed several times during the course of the semester; other, informal, untaped interviews with instructors were also conducted. Fifteen students were interviewed, 11 of them formally, on tape (out of a total of 56 students in the four classes). Casual conversation during the observation period provided much information; students survey sheets were distributed in two classes, but many of the students didn't respond. When time allowed, instructors candidly discussed their teaching methods and their rationales for those methods, as well as their evaluative procedures. One "task force" meeting of full-time faculty was observed during the semester. By far, the most valuable information about the students and the program was gained in observation and talk with students and faculty.

The Focus of the Study

The office occupations program seemed to us an almost ideal locus at which to make an exploratory investigation of the consequences for literacy development of the correspondence between labor market and vocational program stratification (discussed in a previous section of this report).

People who work in offices, as clerks, typists, bookkeepers, receptionists and secretaries are nearly all women--35 percent of working women are in office occupations, and 79 percent of all clerical positions are held by women (Smith, 1980). In the office occupations training program under discussion, 98 percent of the student enrolled as majors were women.

In addition, office occupations was one of the ten courses of study most frequently chosen by minority students.

Office Occupations
Enrollment by Ethnicity

	December 1980	Spring 1980
Black	12.1%	21.6%
Hispanic	20.1%	15.4%
Anglo	67.1%	63.0%

This chapter was written by Pat Taylor.

A review of 1970 census data for the SMSA in which the site college is located suggests that minority women are more likely to be found in lower-status (and lower-paying) clerical occupations, such as "typist," than in the higher-status clerical jobs such as "administrative secretary" (but do note that the data are over a decade old). As we argue below, the manifest purpose of the office occupations program is to train women to fit into this labor market. One possible implication of this situation--women and minorities concentrated in certain occupational sectors with their own systems of training institutions (given that much or most of written language use (discounting that of students) takes place at work, and that knowledge of written language, unlike spoken language, is much more likely to be acquired in formal instructional settings) is that social groups routed through different occupational/training systems come to possess different "abilities" to use written language. We can provide a modicum of information on these issues by first examining the uses of literacy in clerical occupations, then commenting briefly on some recent trends in demand for clerical work, and on the various training agencies (in addition to the community college) which function to shape workers for jobs in clerical occupations. These discussions serve by way of introduction to the detailed description of one course in the office occupations program, and the model of written language use and office work that it presents to students. The course was selected essentially because its explicit curricular function was to teach business letter writing, as well as some basic English--that is, the written language to be used in office work. Our observations in other courses (including courses on "secretarial procedures," "orthography," and "word processing") support the generalizations derived from the case study of this course. The attitudes and procedures we report are common throughout the program.

LITERACY AND CLERICAL WORK

As Harry Braverman (1974) has pointed out, use of the designation "white collar" to characterize clerical work is a survival from the nineteenth century enterprises in which "clerks" were men whose positions in their enterprises were semi-managerial, and who were (relative to the manual laborers) decently paid. Since that era, the pay, status, and the range of job responsibilities for clerical workers have been reduced drastically. At the same time, clerical work has come to be seen as "women's work." In this report, we try to link some of the changes in the occupation itself with changes in the uses of literacy in that occupation.

With the growth of the business enterprise itself in the nineteenth century, the office became a larger entity and office work became more segmented and routinized. The higher-status office space, the decision-making positions themselves, became separated from the lower-level office positions, those in which decision-making and discretionary prerogatives were low. The latter positions became female enclaves.

As the office itself became segmented, a parallel process took place in the language used in the office. Note first that language use is the major, almost sole activity of the modern office. The manager spends the vast majority of "his" work time reading, writing, and talking either face-to-face or over the telephone. The female office worker (whom we shall refer to generally as the "secretary") may perform the function of "mouthpiece," "interpreter," or, in general, "linguistic mediator" for the manager. There are several aspects to this linguistic role: (1) Incoming communications must be sorted and given a preliminary analysis by the secretary. For incoming written communications this may entail the secretary having to analyze the category to which the communication belongs--in some cases, secretaries are required to respond to certain types of routine communications by drafting equally routine replies--in other cases, the secretary must perform a preliminary sifting for the manager, informing "him" of the most pressing incoming communications (those requiring the quickest response). For incoming verbal communications, the secretary is responsible for screening out visitors and incoming telephone calls. (2) The secretary's role in the production of outgoing communications--primarily written communications--is much more prominent. Here "her" role becomes similar to that of the mouthpiece or "orator" in traditional societies: the manager must make a public or official communication. However, such communications must be made made in a highly formalized and rigidly specified form: proper typographical format, correct orthography, grammatically proper construction. Highly stylized greetings and farewells must be used, etc. (Some of the linguistic requirements of the secretary's work are discussed in more detail below). The manager himself often produces, by most accounts, a crudely written, orally dictated, or tape-recorded version of the communication, in which the content is outlined. It is the secretary's responsibility to produce the proper form and style for the communication. There were numerous instances in all of the office occupations classes observed of both students and instructors volunteering accounts of the poor writing and spelling abilities of managers. On several occasions the students were told explicitly that it would be their responsibility to see that written communications followed the proper form--that the managers would not know how to do it.

Finally, it may be suggested that while the secretary takes primary responsibility for the style and format of communications going outside the organization, the managers consciously develop language styles to exclude all outsiders (including secretaries) from the vital communication system within the organization: Rosabeth Kanter describes the situation in the corporation she studied:

> It was easier to talk to those of one's kind who had shared experiences--more certain, more accurate, more predictable. Less time could be spent concentrating on subtle meanings, and more time (such an overloaded resource for managers) on the task. The corporation's official language system and cryptic jargon...could be supplemented by the certainty that socially similar communicators would have more basis for understanding one another. Hence, another force pushed for the confinement of managerial to a closed circle of homogeneous peers, people who had been through the same things together and could readily understand one another...Even people who looked different raised some questions, because the difference in appearance might signify a different realm and range of meanings in communication...

> Women were decidedly placed in the category of the incomprehensible and unpredictable. There were many reports that managers felt uncomfortable having to communicate with women. (Kanter, 1977:57-58)

Thus, while the changing office environment has brought about a segregation of the language functions of the different positions in the office, these different language uses are not equally valued The language of managers, "cryptic" and jargon-ridden though it may be, has a much higher status than the language of secretaries. The former is treated as an attribute of the individual, somthing akin to a "talent" which must be cultivated through an experiential process. Secretarial language, however, is assumed to be a vocational skill. The secretary is given the raw material, the result of the executive's thought process--the oral or written rough draft for a letter or memo or report--and told to "clean it up" and present the final typed copy for signature, in a sort of "black box" operation. The secretary's contribution to this process is considered mechanical, not substantive, and, therefore, she is paid accordingly.

Literacy as a Job Skill

The clerical occupations cover a wide range of job duties and titles. To those within the field the distinction between the "secretary" and the "clerical worker" (or "typist") is a matter not only of higher pay but of greater prestige and professionalism. While clerks must do the most routine and repetitive work, requiring little or no understanding of any operation but data entry, filing and sorting papers, etc., the secretaries must be able to respond intelligently and within the context of organizational realities. He or she must be able to compose letters from rough copy, spoken directions and dictation. Office workers should also be able to research topics, compile data into reports, charts, tables, and other formats. They should also be able to use spoken English: when communicating clearly on the telephone, taking accurate messages and responding to directions given orally. All of these tasks, however circumscribed by company or organizational policy or accepted usage, require literate personnel.

The following is a list of the types of business writing one researcher compiled, "typically" required of a qualified office worker:

- Inquiry and request letters
- General administrative letters
- Replies to requests and inquiries
- Goodwill messages, including those from the president or top management
- Miscellaneous letters of other kinds
- Letters about employment
- Claim and adjustment letters
- Credit and collection letters
- Sales and sales promotion letters (Treece, 1980, pp. 70-1)

Other types of required writing include:

Reports
Memorandums
Minutes of meetings
Bulletins
Handbooks
Announcements
Leaflets
Programs
Specifications
Training material
Summaries (Treece, 1980, 71)

Borcher and Joyner (1973) give much more extensive lists of the tasks performed by different types of secretaries (e.g., "general secretary," "executive secretary"). (The reader should note, however, that the secretaries in the Borcher and Joyner study were all members of the National Secretaries Association, and that this status may have skewed their results. Nevertheless, the breakdown of office work into 476 distinct tasks, along with the percentage of secretaries in each type of secretarial position performing these tasks, makes the study useful. The greatest drawback of the task list is that it predates the influx of electronic office equipment which is changing office work dramatically.)

It should be apparent that much of the significant written communication performed in offices is the work of secretaries. However, it would be a mistake to assume that office managers are in effect delegating power or authority to clerical workers--indeed, historically the trend is to reduce the authority and autonomy of office workers. What we are seeing is the delegation of communicative functions to the office workers and the routinization of language and the communicative situations in which secretaries engage. Office language is studded with specialized vocabulary items (some common in secretarial practice, others organizationally-specific, See Kanter, 1977 for the latter), with arbitrary and highly formulaic rules of use (some of these are described in the case study). The types of discourse events the office worker engages in are also highly formalized ("the sales letter," "the memorandum," "the reply") and each entails special rules of format and usage. "Business communications," then, consists of a collection of "recipes" for written language, a sort of "occupational dialect." Before we sketch out this specialized language as it is taught in the office occupations program, we will turn briefly to look at the trends in demand for office workers, the different systems of training, and the organizational context of this particular program.

Context of Office Occupations in the Work World

Overview of U.S. Economic Swing to Service and Information Industries

The United States labor force is no longer based primarily in the manufacturing sector; increasingly, the work force has become concentrated in the service and information processing areas. According to Commerce America, in 1977, "...almost half of the total U. S. work force is employed in an information-handling capacity. These employees earn 53 percent of the wages in the United States." This trend in employment is expected to continue, creating a large shortfall in the number of employees available to work in offices in the near future. The United States Department of Labor has projected that there will be increased demands for workers in the following categories, from 1977 to 1985:

Job Category	Projected Increase in Demand
All office workers	34% (Total: 20 million people)
Secretaries	"(N) early 50%" (Total of 6 million people)
Typists	35%
Billing clerks	56%
Estimators and investigators	36%
Mail handlers	35%
Receptionists	38%

Some office occupations are expected to decline in demand:

Job Category	Projected Decrease in Demand
Stenographers	24%
Keypunchers	20%
Telephone operators	1%

In order to manage the increase work force in offices, upper level personnel are expected to increase at an even greater rate:

Job Category	Projected Increase in Demand
Bank officers and financial managers	47%
Office managers	40%
Health administrators	67%
Sales managers	30%

Because of the increase in demand for more clerical and secretarial workers, the demand for clerical supervisory personnel is predicted to rise to nearly 300,000 people by 1985. (Uthe, 1980)

The lack of qualified personnel who are willing to fill these jobs at present is making itself felt in office work occupations. Standards have fallen and deficiencies in job preparation are reported; these range from simple lack of skills and training:

> ...Companies that hired only those who could write shorthand at 120 words per minute a few short years ago often require only 80 words per minute today. The same corrosion in standards also exists with typewriting skills--a drop from 60-75 words per minute to 50 for some companies, and a drop from 50 to 40 for others... (Uthe, 1980:4)

to inability to get along with others in the office:

> Although surveys conducted over several decades show consistently that office workers lost their jobs because of lack of ability to

> get along with others rather than lack of skills, the trend seems to be that potential workers may have deficiences in both areas. In fact, in recent years, employers have hired as "secretaries" individuals who do not possess the traditional secretarial skills. Many receptionist/typist positions of former years have been upgraded to the job title "secretary" without a corresponding change in task, duties, responsibilities, and qualifications. (Uthe, 1980:3-4)

SYSTEMS OF TRAINING FOR OFFICE WORK

High School Business Tracks

Traditionally, there were two main training systems for office work (discounting "on-the-job" training, a vague, overlapping category. We are concerned here primarily with institutional training systems.) The first, and perhaps still the most common, was the business or vocational track in high school. Rosenbaum (1976), in a detailed study of an ethnically homogeneous, working-class high school, looked at the jobs taken by females from the non-college track immediately after graduation:

> ...more than 90% of the jobs are fairly similar: secretary, typist, teletype typist, key punch operator, clerk-typist, clerk, office girl, telephone operator, receptionists, sales clerk. For the preceding analysis, these jobs could be divided into those requiring the skill of typing and those not requiring it. Typing is a definite skill, and this is a real status distinction in an office staff. Yet, when we realize that typing can be acquired by one year of part-time study and that this distinction covers virtually the entire range of statuses that female graduates of the non-college tracks can expect, then we cannot feel that the abilities, efforts, or track placements of these students have had much bearing on their careers. (Rosenbaum, 1976:100-101).

(For clarity, we should note that while typing may be the only distinctive criteria for hiring in the situation above, it is highly likely that the women will be required to perform many tasks, most of them involving written language, once on the job.) In fact, Rosenbaum found that the school he studied "makes it harder for females than for males to be in the college tracks" (p. 101). Track placements for females are less related to ability and effort than placements for males. That is, a high-ability, high-effort female is more likely to be in a non-college track than a high-ability and high-effort male). On the other hand, once in a non-college track, the system does become responsive to ability and effort levels:

> This finding indicates the double standard of the track system. If college-track males demonstrate high ability and effort, they are likely to remain in college tracks and ultimately to attend college, but this is much less true for females. If females demonstrate high ability and effort, the track system is repsonsive to them only after they have left the college tracks. Indeed, the business track's responsiveness to females constitutes an incentive for them to enter these tracks and receive preparation for inconsequential selections to dead-end jobs. (Rosenbuam, 1976:102-103)

Rosenbaum selected an ethnically and class-homogeneous school in an attempt to isolate the effects of tracking systems. It seems likely, however, that in schools with heterogeneous student populations, minority and working-class students would be discriminated against in much the way women are in the system described above.

In addition to typing, vocational tracks (for women) also teach some of the fundamentals of office procedures, bookkeeping, the use of office machines and so on. However, some women aspire to office occupations that cannot be had without some special training beyond the high school level. While some organizations do their own training, the most likely institutional alternatives for such women are business schools, or, presently, community colleges.

Business Schools and Community Colleges

The traditional alternative is the vocational school or business college. For secretarial training, this type of institution can range from the prestigious Katharine Gibb school in New York, which combines intensive, varied training in all aspects of secretarial procedure and equipment with instruction in "finishing school" manners, to the ordinary business college, with its courses in shorthand and word processing. The business college usually offers courses designed for working students, such as night courses, or intensive courses covering a wide variety of skills offered in nine-month sessions in which students prepare full-time. One OOC faculty member explained the advantages of the business school over the community college:

> This is one of the beauties of a business college, and that is that you can get the training and the skills quickly and get out in the job market and earn income and that's one of the primary reasons that people go to the business college...They can get in and out of there, usually, in nine months, and be on a full-time job, earning the same money that our people would earn leaving here after two years.

The role of the community college in training office personnel is a recent phenomenon. In 1973, for instance, a study in Columbus, Ohio found that none of the professional secretaries that participated had been trained in a junior college, community college or vocational-technical school (Borcher and Joyner, 1973). The authors suggested that this was due to the fact that these women had been on the job for ten to twenty years, receiving their training before the rise of the community or junior college. The instructor quoted above pointed out a critical difference in the aspirations of the students at the community college:

> But many of (the students at the community college) want the associates' degree, and many of them are transferring, to get a bachelor's degree. So you do have a difference there, I think.

She also pointed out that students may come from the business school to the community college as a step toward other education:

> I have seen some people that I have had at (business school) here, at (the community college)...What these people do is go there (to business school) and get some quick skills, so they can get at least a part-time job...so that they can be self-supporting, then they come over here and start working toward the degree.

A theoretical hierarchical relationship among the institutions' training office personnel can be constructed; ranked in terms of the status and hirability each confers upon its graduates. Apparently, the high school graduate with vocational track training is at the lowest level, followed by the business school graduate, then the community college student. It should be noted that the community college offers a broader range of courses than the business college, and places more emphasis on "principles and concepts," according to instructors. The cachet of a college degree or even of college courses (most students in the community college do not get the degree) also makes a difference between these two groups. In one of the major employers in the area, a multi-national electronics firm, all applicants with college degrees are given applications which are a different color from other applicants; these are the "professional" applications. The personnel director seemed to believe that an associate's degree demonstrated that its holder possessed such character traits as ambition and perserverance, representing a "better class" of applicant. Possessors of four-year degrees, ranked still higher on this heirarchy. However, the job-seekers with advanced degrees in fine arts, liberal arts or social sciences (the majority of females take these courses of study in college) find that their higher education is viewed as a handicap. Employers often feel that such workers would rebel against the boredom and low pay of the available jobs. Therefore, in the marketplace, the stiffest competition is between the skilled holders of two- and four-year degrees in secretarial studies.

It should be noted, however, that secretarial jobs usually require that the applicant pass several tests. These include spelling tests, typing tests for speed and accuracy, shorthand tests, letters to compose and type to demonstrate the applicant's basic English skills. Students circulated stories among themselves in class about classmates who had gotten good jobs without completing the degree program, indeed without any training beyond high school, by successfully writing out the test letter. This situation was discussed with the chairperson of the office occupations program:

> Well, it could certainly be a plus in the applicant's favor to know that the student had stuck with something and evidently gained more knowledge and more skills by having completed as associate degree versus somebody who's only completed three or four courses--they're obviously going to be more prepared. So I would think that it's going to be a definite plus if it came down to choosing between two applicants, one who has an associate degree, one who has two or three courses--everything is exactly the same as far as any kind of testing they might have done--I would think that would be considered in favor of that student.

> Interviewer: But they'd still give them the tests, right?
>
> Chairperson: Yes.
>
> Inteviewer: What kinds of tests do they give?
>
> Chairperson: Well, it depends on the particular type of job. The typing test most companies will give, or for office workers they may give a spelling test, a shorthand test if that's required. Some of them will give a more general test; they include some math.

The majority of the office occupations students do not complete the degree. Many of them are not seeking it, but taking selected courses to gain job skills. During the period of study, one student dropped out of the program completely because she had been offered an interesting job overseas. Two former students visited a classroom, giving a talk about working conditions and looking for work. One of these women had spent three weeks looking for work; she had her degree in medical secretarial specialty. The other did not complete the degree; she got her job through the office occupations staff who heard about the vacancy. The chairperson of the department commented on the reasons students do not complete the program:

> The figures...for the (local) area say that all the colleges and the high schools...will not be able to supply enough office workers, and the demand will increase in the next ten years. So I doubt we'll increase in our graduation ratio because the economy being what it is, they simply get enough skills and then go and work because they have to, they simply have no choice.

Our research did not extend to an investigation of actual workplace hiring practices. What the comments noted above suggest, however, is that a credential from a school or training program is not yet a necessity for obtaining a clerical job, but that such credentials may be useful for obtaining a particular type of clerical job (provided, of course, that the applicant is able to pass the performance tests still used to regulate access to the occupation). Some of the ways in which trianing may give the student an advantage in seeking a particular type of clerical job can be seen by considering the "specializations" offered by the training program in particular types of clerical roles. We then consider the means by which the faculty of the training program keep themselves informed of the requirements of these roles.

Academic Career Paths in Office Occupations

Students who complete the program requirements in office occupations receive an associate of applied science degree. This may be awarded in the desired area of specialization; students may choose among the general clerical, general secretarial, medical secretarial, legal secretarial, or "word-processing, corresponding/administrative" secretarial. Outside the departmentally-mandated courses of freshman English and state history, students take a core of require courses with other supplemental coursework designed to train them in the specialization of their choice. All students must take spelling, introductory typing, office accounting, business speaking, math for business, intermediate typing, a course on office practice, another on office machines; also required are an introduction to word processing course, a course on secretarial practices, and another on office management.

Each specialization adds courses to this core curriculum which are geared to the job requirements of the field of specialization. For example, the general clerical specialization requires business psychology and a course in "microeconomics." Neither course is required for the legal or medical secretarial specialization. Students in the medical specializations are preparing for jobs which require a lot of machine transcription, a course which they are required to take. Medical secretarial students are required to take a couse in human anatomy and physiology; legal secretarial students are required to take a course in business law.

Sources of Information about Job Requirements

The course sequences sketched above are designed with the job requirements of the office occupations in mind. In order to accomplish this correspondence of job requirement and curriculum, the faculty must stay informed about this rapidly changing field. Vocational faculty, including office occupations faculty, have three main channels for information about the professions: through their Advisory Boards, by means of their own previous or current occupation in the field that they teach (personal knowledge), and through publications in the field (professional journals, hand-books, texts.) These sources of information are examined below.

Advisory Board

Each Vocational/Technical program in the college has an Advisory Board, appointed by the college; these are community members whose jobs are in the area of the program. For example, the Advisory Board of office occupations includes Certified Public Secretaries, members of state and city vocational agencies, and business people from the community.

The function of the Advisory Board is to keep the faculty and administration of its assigned program informed on the changing job requirements in the profession or trade. A case in point: the Board recently recommended that the office occupations program require a course in "human relations." (Note the "trickle-down" of this idea from the national education literature we cited above.) However, the faculty and department chairperson did not agree that such a course was needed; one part-time instructor commented on the Board's recommendation:

> I don't think you can say that (the Advisory Board) "shaped the curriculum." They do advise on the curriculum, but the department chairperson has mainly done it on her own. 'Course they do say this is what they want, 'cause they just recently said "We don't feel like (the students) are getting enough on personal relations." So we looked to see if we needed a whole course on that. You know

> I got that filmstrip... last week..., that was on personal relations and then we require them to take Business Psychology...But we have decided in our department that we have covered that area in several different areas.

Thus, as far as the advisory function is concerned, the Board can only recommend, not order, changes.

Background of Faculty: Education and Work Experience

All of the full-time faculty in office occupations have bachelor's degrees; two of the faculty have master's degrees.

Part-time faculty include a local businessman, a part-time secretary and a high school teacher who teaches in the college at night. All instructors must hold a degree in the office occupations (or a business-related) field, and all must have related work experience (although the type and level of experience varies considerably).

The majority of the faculty in office occupations were middle-aged, married Anglo women with college degrees. Their career patterns were substantially the same as those of many women in the labor force: they worked in their early twenties, dropped out to have children, resumed paid work. One part-time faculty member works part-time in an office.

The instructors draw on many sources to stay in touch with developments in the field: field trips, inviting speakers to their classrooms, attending workshops, discussions with members of the business community, as well as information from their texts, trade journals, professional associations, discussion with students who work in offices and the recommendations of their advisory board.

The texts will be discussed in conjunction with the classroom case studies. The trade journals are attractive, glossy full-color magazines, such as Today's Secretary, The Modern Office, which are kept in a magazine rack in one of the office occupations classrooms. They feature advertisements for office equipment, furniture and office supplies, as well as articles on the changing office technology and work environment. The journals also include cartoons on office life, stories in shorthand, and testimonials on the value of secretarial training. On occasion, instructors read articles from these magazines to their classes or reproduced material from them for the class. These journals are published by trade associations such as associations of office managers and secretarial associations, as well as by the Gregg division of McGraw-Hill, which also publishes texts in business education. The magazines appear to be written primarily from a managerial standpoint, but do include advice on care of office equipment and other items aimed at the secretarial staff.

The model of the role of the office worker that instructors presented to their students seemed to echo the job description of the National Secretaries Association. Occasionally, the students protested against the faculty perceptions of work and conditions associated with work. For example, at one point in a class a female student who was also working full-time, exclaimed, "You make it sound like it's always going to be a man boss!" Another time, when genuine exemplary letters were handed around for students to get an idea of acceptable business letter format, a student said, "I know what we've been doing wrong. We've been trying to make it too perfect!", seeing errors which would not be tolerated in the classroom. The faculty felt very strongly that secretarial work deserved the respect given to a profession and tried to teach this to their classes. They also felt that pay scales and working conditions were more than adequate, and upward mobility awaited the secretary who did a good job.

The Processes of Curriculum Construction

The construction of syllabi and the selection of textbooks are highly centralized in the office occupations department--that is, they are done by the full-time instructors rather than by the part-time instructors actually teaching a specific course. While it is true that, as one part-time instructor put it, "we have the option of reviewing them and making recommendations if we feel they ought to be changed," the final authority resides with the full-time instructors, who not only make the syllabi for each course, but even, in some instances, make up the tests for the courses. There are corollaries to this centralization of the curriculum construction in the hiring practices for part-time instructors and the assignment of these instructors to teach specific courses.

Unlike some other vocational education programs, office occupations instructors are not hired on the basis of any specialized knowledge, skill or expertise in a specific aspect of office practice--unlike, say, the child care department where a specialist in nutrition is hired to teach a course on nutrition. Part-time instructors may teach courses outside their specialty areas: some of the long-time part-time instructors we talked to had taught five or six different courses (ranging from Business English and Orthography, to Shorthand and Word Processing), using the standardized syllabi.

This standardization of curriculum structuring and the "generalist" approach in course assignments, corresponds to the routinization of work activities in office work occupations themselves. This correspondence is not entirely accidental: a few of the courses in the office occupations department are in fact based, to a great extent, on training packages produced by major corporations in the office work field. The typing course, for example, is taught in a self-paced manner with a nationally distributed audio-visual training guide; training modules developed by machine manufacturers are also used in the word processing and office machines courses. Other courses, such as orthography and shorthand, are taught almost entirely out of the textbook (to a much greater extent, in fact, than the Business Writing course described in the case study--Mrs. Bell had extensive experience teaching office skills courses and used handouts and exercises from sources other than the text to a much greater extent than the other instructors we observed). There is no question but that these are highly efficient means of instruction, particularly when manufacturers' manuals are used to train students to use particular machines.

The matter of the correspondence between the organization of the occupation and the structure of the curriculum and pedagogy is taken up later in a separate section comparing the practices in the office occupations and child care programs. We turn now to a detailed consideration of the Business Communications course itself.

Business Communications

The decision to study the business communications course was based on the assumption that this course was intrinsically concerned with literacy development as a job skill. One team member sat in on a day class which met three times a week. Interviews with students and the instructor were conducted, and survey instruments distributed. The instructor and the researcher developed a good rapport; the instructor openly discussed changes she felt were needed in the class. Her grading rationale and processes were also opened up for the researcher.

The Place of Business Communications in the Curriculum

In preliminary discussion with the department chairperson, the research team was informed that the course was a "sore spot" with the department. Business communications is described in the catalog as offering instruction in "current trends in business communications with emphasis on grammar and the mechanics of writing." Students are to receive "experience in composing various types of business letters." The catalog requirements for the course were the ability to type at least 30 words per minute and completion of Freshman English I (the latter may be waived with departmental approval). The course in writing for business purposes seems to be standard in most community college office work programs, and very often Freshman English is a prerequisite for it. In our case, this requirement is the locus of controversy.

According to catalogs from other community colleges and to the faculty of the program under study, Business Communications is designed to be a "review" of basic English grammar and usage, with the main emphasis placed upon teaching proper format, word usage, proper typing style, and specific linguistic conventions which are proper to types of business communications students will encounter on the job. However, instructors and the departmental chairperson are convinced that students in their program are grossly deficient in the basic English skills needed before the problems of format and linguistic conventions can be addressed. The departmental Task Force recommended that the department offer its own course in the grammar and basic usage of English--a remedial English course of its own, in effect. When asked about their perception of a need for this course, the chairperson explained:

> We feel like we're teaching both English grammar and letter writing in the same course. We were trying to separate the two. Obviously, if they don't have the grammar skills, (the students) can't compose a mailable letter...So we've found it necessary to have the grammar and have had to teach both in one course.

When the chairperson was asked about the effectiveness of the Freshman English course in preparing students with basic English skills, the chairperson stated flatly·

> We haven't found that much benefit in it. That's why we teach grammar in Business Communications.

Mrs. Bell agrees with the chairperson of the department on the problems present in teaching the course:

> It's called Business Communications, but about half of the course is spent on business English, which we find the students need desperately...We find that the majority of them come to us with very sketchy backgrounds in business English. I say "business English," just plain grammar is what it is. It's not just business English. And parts of speech and sentence structure, and being able to identify parts of speech and punctuation, capitalization, these things. And the thing is, of course, these are vitally important to business communcations so they have to be at least reviewed. Every communcations book that I have taught or reviewed has some work in the area of grammar or business English, because it's so much a part of it. You can have a letter that is well thought out or the message you want to get across (is there), but if it's not well-written, or you have very poor subject-verb agreement, very poor spelling, very poor punctuation, this sort of thing, you don't have a good letter...(Usually) the assumption is that the students come to you already knowing this and all you're doing is refreshing them.

She went on to expand on the department's perception of the need for a separate course in business English, and the outcome of the departmental proposal for such a course, taught by their own faculty:

> The thing is that (grammar) is so vital in all of our courses, in...shorthand, machine transcription, office procedures, secretarial procedures. All of these courses, the grammar is so important, it's not just this one business communications course. We voted it last year, our Task Force, and...But the administration said, If it's an English course, it should be taught by the English department. And the English department didn't want it and we really didn't want them to have it...That's not a put-down of the English department, but it was just that we knew what we wanted to teach: we wanted to teach business English...And we left the course as it is...There is not anybody in our department who is really happy with it as it is. We would like to have two separate courses, and have the business English as a prerequisite to Business Communications.

After that attempt, the office occupations faculty returned to their own system, using Business Communications to teach both basic English skills and proper business format and writing style.

Business Communications as a Program Requirement

The effects of this course extend beyond the office occupations program itself. All office occupations majors are required to take the course; this is built into the program on the assumption that students will be typing, editing, and composing from spoken orders, rough drafts, in response to communications they receive and from dictated material. However, other programs in the college business areas also require Business Communications: these are Banking, Credit Union Management, Mid-Management, the Associates of Applied Science and Industrial Management specializations in Business Management. Marketing and Real Estate require either Business Writing or "an approved English course"--either Freshman English I or II. Accounting requires either Business Writing or technical report writing.

We have seen that office occupations students are overwhelmingly female. The course we observed included four males, none of whom were office occupations students. According to a survey of students executed by the college in Spring, 1980, the other programs which require business writing have their own characteristic gender composition:

	Male	Female
Male-dominant Enrollment		
Business Management	69.2%	30.8%
Real Estate	65.9%	34.1%
Mid-Management	62.2%	37.8%
Female-dominant Enrollment		
Accounting	41.5%	58.5%
Banking	39.0%	61.0%

Marketing is evenly split between the sexes. Those programs which are heavily dominated by male students and require Business Communications are especially likely to send in male students to take business writing.

The Typing Prerequisite and Gender in Business Writing

The ability to type 30 words per minute is a requirement for taking business writing. However, in the course observed, one woman and three of the four men enrolled were not proficient in typing. One of these three men was concurrently enrolled in a fundamentals of typing course. Despite the program requirement of typing, these students had been advised to take the course by their faculty advisors. One male student reported that the advisor had asked him if he had a "wife, girlfriend, friend" who could type his letters for him. The first day of class the instructor had asked who in the class could not type; she told those students that they would come to an arrangement. In the required work of the class, students were expected to produce typed assignments outside of class to hand in; their letter writing tests, however, were to be typed out in class. The students who could not type did their tests in longhand on ruled paper, so that they could indicate the proper spacing of the various parts of the communication which was assigned. The rest of the class had to type their tests out.

Students who did type their tests were not graded specifically on typographical errors, although these were marked. Such typing errors had the effect of contributing to a sloppy appearance of the material to be graded; the instructor did express dismay at students' poor typing performance, noting that these were office occupations majors who were expected to know how to type well. In addition, students who had taken the typing course or courses often found conflict between the format and usage rules in the typing course and those in business writing. The advising procedure in other programs and the acceptance of underprepared students into the class created task segregation within the class. In effect, the students who did type were expected to perform two tasks properly in their tests: demonstrate knowledge and use of proper format, usage and composition, in addition to accurate typing. The other students were only required to exhibit knowledge of spacing, proper form and composition.

The line of demarcation for the tasks is strongly correlated to gender: three out the four males in the class did not type when they enrolled, whereas only one of the fifteen women in the class was exempt from the typing requirement. (Two of the women in the class were not office occupations majors: one, however, did type her material.) In the modern office, typing is a sex-segregated activity, generally considered "women's work." The non-typists in business writing were also non-office occupations majors. The majors of two of the males were known: one was studying hospital administration, the other business management; the major of a third was probably a business course, judging from his textbooks. The fourth male, who did type, did not respond to a survey and his major is not known. The female was an accounting major, according to a conversation with the instructor. (This student was anomalous in several ways: she did not type, she was a foreign student, as well as being a non-office occupations major.) This situation is of interest because the majority of typists in the class were the office occupations majors, all female. They were in a program which was training them to be secretaries, in which they would type out business communications from drafts and other items. Thus, their ability to type is a vocational requirement. The males, on the other hand, were studying in programs which would prepare them for jobs in which they would have secretaries to do their typing for them. Theoretically, they were in the course to learn the proper composition and format for business writing, which would be delegated to their secretaries for execution; in practice, of course, they're in the course because it's required for their major. Thus, their inability to type was not a handicap for future employment, but rather the opposite, since typing is a low-status activity. The instructor appeared to accept these gender-segregated task realities by waiving the typing requirement for some students.

Student Characteristics

Some of the student characteristics have been discussed above. Twenty-two students enrolled in business writing, three dropped out for reasons unknown in the first two weeks of the semester. Of the remaining nineteen, fourteen responded to our student surveys. Some information was available on other students, from their classmates, the instructor or general conversation and observation. There were four males, fifteen females. By ethnicity, or race, there were five Hispanic women, one Hispanic male, there were two Black women and one Black male. Two of the males were Anglo, one was Hispanic, the other Black. Two of the students were apparently foreign, one non-typing female and the Black male.

There were six non-office occupations majors in the class, four of whom were male, two female. We have already discussed their majors individually. Of the all-female office occupations majors, five were Hispanic, two were Black, six were Anglo. In comparison with the college as a whole, the enrollment in office occupations is mostly female, with a high proportion of minority students; the enrollment in this course reflected that situation. (College-wide enrollment statistics are presented elsewhere in this report.)

Most of the students were in their early twenties, with the exception of two women in their mid-to-late forties. These older women had the highest educational levels of those surveyed Both had bachelor's degrees and one had done graduate work. A young student had a cosmetology license. Two other students had had some other college work before coming to the community college. Other student characteristics discovered through the survey included the information that six out of the fourteen respondents were receiving some kind of financial aid; two students had taken some developmental course (one did not admit to this on a survey, but was recognized by the project researcher in developmental reading). All but one of the respondents reported that they were seeking their associate's degrees.

Student Motivation in Business Writing

Students reported taking the business writing course because it is required in their degree programs. This is probably more characteristic of the students taking full-time day classes than the night students; according to the instructor, those students are taking classes in order to gain job skills. Attendance in the class varied, but the drop-out rate was low, three students out of 22.

In addition to the survey instruments distributed in class, interviews were conducted with students. These were done formally (on tape) and informally, before and after class. Seven students were interviewed formally and informally; one was interviewed informally only. All were female, all office occupations majors. Three of the women were also in another class under observations, a class in secretarial practices. (Four additional students in that class were interviewed formally; however since the class did not have the direct link with literacy development of business writing, their comments and insights are integrated into the overall report on office occupations as a program.) The interviews were done in the student lounge area, after preliminary conversation and establishment of some rapport. The interviewed students were typical of the class as a whole, with the exception of the lack of a Black interviewee. Four students were Hispanic; three Anglo. By age: one student was 20, three were 21, one was 23, the other was 45. All but two lived in the city where the college is located; three commuted from a nearby town.

Program Choice and Occupational Goals

A survey conducted by the college in 1979 to determine students' educational goals showed a higher percentage of Office Occupations majors aspiring to strictly vocational goals (improving existing "job skills," "preparing for a job") than in any other major (including construction, auto mechanics, etc.). Over 50% said they wanted to get the two-year degree (only auto mechanics and construction had larger proportions of majors pursuing the Associate of Arts degree). All but one of the student interviewees were in college to prepare for office work; however, educational attainment levels, motivation and long-range goals varied according to ethnicity and age. The Hispanic women were in the younger age group; they did not have other college experience before coming to the community college. By contrast, all of the Anglo women had had college work in universities before (this is not typical of other Office Occupations classes); the older woman had a Bachelor's degree and some graduate work. The young women were all single, without children; the older woman had a husband and a child in school. One of the Hispanic students was planning to transfer to a university, or take courses concurrently there and at the community college. The other Hispanic women were intent on getting degrees and then jobs.

The choices of specialization were known for three of the Hispanic women who were interviewed, and all of the Anglo women. Two of the three Hispanic women were specializing in the medical and legal secretarial courses, respectively. The third Hispanic woman was combining the two programs; she told why she decided to take the medical courses:

> See, both my parents had cancer, so I've been having to go to the clinics and hospitals, you know, and (seeing the medical secretaries), I decided to become interested.

Another Hispanic woman studying the medical secretarial program cited reasons which had been given by other office occupations students as well:

> When I first started high school, I thought maybe I'll be a nurse... Then I couldn't see myself really getting to the gory stuff. Then, you know, medical secretary, you're with the medical field, but you're not really into the yucky stuff...You know, I can take patients that are--helping out and stuff like that, but operations and stuff like that, that's not for me. You know, that's not being a nurse, but it's kind of coming close, helping people. People are more willing to tell the secretary something than they are to tell the boss, but tell the doctors...You try to help them. I have a friend that's a receptionist for a doctor. She says that she finds that people tell her more of their problems than they tell the doctor, so she sort of passes it on. They respond to her more openly, and they're a little hesitant with the doctor...

Two other students who chose to train for medical secretarial jobs reported spending time in the doctor's offices and being impressed with the medical secretaries they saw there; one also had a friend who worked in a local blood bank. A different motivation can be seen, in this description of a 22-year-old Anglo women's plan for her future:

> I chose to become a medical secretary because I had worked in laboratories before and I enjoyed it, but also because I needed to have some kind of a skill so that I could support myself while I went into an education like music or photography. Those don't necessarily get you a good job, whereas as a medical secretary I could go to any city I wanted to and get a job.

For this student, the job is a means to a different educational goal; she was unique among the interviewees in this regard. This student was also from a middle-class background, and had studied in a university. She had chosen to come to the community college because the university in the area did not have a secretarial preparation course.

Overall, in talking to students, a picture of their career expectations and their process of choosing careers emerged. Students reported exposure to particular jobs, such as the medical secretaries they saw in visits to doctors' offices, or friends or relatives in secretarial positions. One student reported that she had enjoyed the vocational/business courses she took in high school. Students reported interest in fields, such as medicine or the law; the secretarial training was regarded as a way to enter the field. One Hispanic woman studying the legal secretarial course defined a legal secretary as "a kind of assistant to a lawyer." These students accorded secretaries in legal and medical fields a kind of para-legal, para-medic standing; when questioned, only one student had considered training directly in the field of medical technology, but she said she was afraid it would be "in too deep detail."

Aspirations varied by socio-economic background, as well. Both the younger Anglo women in business writing who were interviewed had been to private school, one in high school and the other in a private junior college. Both had had some university courses before coming to the community college. Neither regarded being a secretary as an end in itself. Unlike the aspiring photographer/musician quoted above, the other young Anglo woman had a more traditional view of her future:

> Well, I want to graduate when (my fiancé) graduates, which is a year from May, so that's when I finish my program. I want to start working when he starts working and we'll probably get married.

Her plan is to have a flexible, mobile job skill so that she can follow her future husband in his real estate career. (Two out of the four graduating "seniors" in the program were planning to get married as soon as they completed course work; one described her future occupation as "part-time housewife" looking for a part-time secretarial job.)

The older Anglo woman had had a career as an elementary school teacher, and was now changing careers:

> It was mostly brought about because I was called and asked if I would like to work in an office and I did. I started out sort of on-the-job training situation and became a court clerk. Thoroughly enjoyed it, but it was a dead end position, so that's why I ended up back in school, because I wanted to get some business courses.

Her plan is to gain job skills, but not, necessarily, the degree:

> I guess maybe in the back of my mind, I'm thinking that I might do that, but if I'm going to do that, I'm going to have to be able to pull more than this three- and six-hour business a semester I've been doing...But, right now, I'm just kind of selecting courses, things I want to learn, really concrete subjects. I took a couple of introduction courses, and at this point in time, I will not take any more introducing me to anything!...I will take things that

> teach me concrete things, because we are at an age, my husband and I, anything could happen, and so I want to take those things and if his health continues to be good and my health continues, and the economy continues to allow me the freedom to go to school, that will be fine. Then, I can, in a couple of years, say, "OK, I believe I'll go on for that degree." So I guess that decision is still a couple of years off.

She is adamant on the subject of taking job-related courses, and unimpressed by the advising function of the faculty:

> Who are they to advise me what I need to do? I mean, I started out in business management, and...I took a couple of those introduction courses, and I don't mean to be putting them down, but I thought "What am I going to do if I have to go into an office...and they say 'What have you had'?, and I say, 'Introduction to computers'?" And they're going to say, 'Do you type, or do you take shorthand, or do you use a dictaphone or something like that'?

The pragmatism of this student is probably a function of both age and work experience, in and out of offices. The younger students, even if they have had some work experience in offices, are naive about the realities of office work. Some are unsure of the process of obtaining a job. The students placed their faith in the degree itself as a way of getting the jobs, despite the fact that many jobs hire on the basis of tests on skills. All students who were asked about their preferences in the type of office they wanted to work in selected the traditional office in which they would be answerable to one or two people. One student wanted to work in a medical office in a country setting. This preference for the traditional office is more likely to be fulfilled for the medical or legal secretarial students; other students, particularly those in the correspondence and word processing specializations are likely to be working in the "open" office, under staff supervision. This is becoming the most common office organization.

Role Models and Job Choice

Despite political action by women's groups and legislative changes in recent years, the majority of women workers are clustered in a few occupations: child care, teaching, food service, domestic work, nursing and clerical work. When educational and career choices were discussed with the office occuaptions majors in the community college, the process by which women chose their fields became apparent. This is a passive, limited process for these students; the exception to this rule was the Anglo student who wanted to go on to study photography or music. The following patterns were observed (including talks with other office occupations majors outside of business writing): (a) students had taken the vocational/business track in high school, or (if that was not offered, as in a private school), they took some typing in high school; (b) they chose jobs they saw other women doing, such as medical receptionists; closely related to this, they chose jobs that their female friends or relatives performed; (c) secretarial work was regarded as a means to enter an interesting field, e.g., students chose being a medical secretary as an alternative way of entering the health care field, rather than becoming a nurse or a medical technician; (4) a friend or relative got them a job as an office worker, and they liked it. The passivity of their career "planning" is apparent: students were placed in the vocational choices, or happened to be in a doctor's office, or to be offered a job in an office. Interviews established the limitations these women perceived when discussing career options; they chose to follow the role models to which they were exposed, which were most often medical secretaries or nurses. If attracted to a particular field, they saw only the option of becoming a secretary to a doctor or a lawyer; the idea of becoming a doctor or lawyer themselves was not an option. (For the majority of these students, such career aspirations are ruled out by educational limitations, economic or cultural constraints, as well as by their view of work as a succession of jobs rather than a career.) Upward mobility in secretarial work was discussed solely in terms of rising to the top of the support staff, or gaining more lucrative skills.

When questioned about the reason for the lack of men in office occupations courses or jobs, students simply accepted the status quo of gender segregation; one student remarked on the status of secretarial work:

> Interviewer: Why do you think there are so few men in office occupations?
>
> Student: I don't know, they probably think that it's not a good enough job, you know, degrading...Working--I guess a guy feels that he should graduate and sooner or later get to the top. And if you're a secretary, you're always working under someone else. And so, I guess they feel that they can't get anywhere.

This acceptance of gender segregation was enforced, probably unconsciously, by the office occupations faculty. As noted above, frequently the assumption was made that the "boss" was going to be male, the secretary female. While options for women in the work force have broadened in the last decade, the faculty and students in the office occupations program hold a traditional view of the work world and women's place in it.

Business Communications In the Classroom

The office occupations faculty agreed that a course covering "basic English" was necessary. The Business Communications course is the department's answer to the problem of students who, according to the faculty and administration of this program cannot read and write English well enough to execute a business letter. This view is supported by the observations of local business groups from whom the department solicits opinions.

Text Choice and Use

The Business Communcations course was expected to combine remedial work in Enlgish grammar, punctuation and usage with instruction in business etiquette and formats in written communications. The text was chosen by full-time faculty along with the department chairperson, with input from part-time faculty who demonstrated interest.

Mrs. Bell, the instructor, was teaching from a departmental syllabus she did not help write (although she was not entirely bound by that syllabus, and did veer from it somewhat) with a text she did not choose, and with which she was not completely satisfied. She described the situation with the text:

> ...We have had some discussions this semester about the possibility of changing the book...(The two faculty members who usually teach the course) have taught it much more that I have, and they just said, "If we had separate courses in business English and Business Communcations, very certainly we would look in a different book. But," and they have reviewed many books, "but as long as we have only one type of course where we have to cover both thing, we think this is a good compromise book, as we can come up with." And if you're trying to cover both courses, grammar and writing, and really they're two separate courses, but if you're trying to cover both courses, most of the time you're going to find either the book concentrates on business English--which I think this book does. And you're going to have to supplement the business English. And that's what we're doing here.

The instructor feels that the text lacks examples of both acceptable and unacceptable writing; she prepared numerous handouts including letter exemplars, review sheets for the tests, sample sentences demonstrating parts of speech, and so forth. However, the syllabus is written so that the text is not used in the order in which it is written. Students start with the fourth unit of the text, proceed to the third, then the first and second units. The instructor explicated this order:

> (We) started with the punctuation: we did the (letter) format and memorandums. Reports and memorandum, that is the (first) assignment. Then (we) went into the punctuation and capitalization. And then we went over the letters for the press and acknowledgement, and (the students) had that long time in there to rewrite those. And then we went back to Part One, which is your parts of speech and grammar, all of that grammar.

The students seemed to have little trouble following this arrangement, although the instructor contemplated revising the syllabus so that the chapters of the book would be followed in the sequence in which they were written.

Presentation of the Lesson

The following section deals with the way the lesson is presented to students--that is, by lecture, by reading aloud, or the use of handouts, individual conferences with students, independent reading, practice, and so forth. Teacher expectations of student behaviors, teaching "style," and strategies used by students and the instructor to deal with written language will be presented and discussed.

Expected Student Behaviors

The class met three times per week; students were expected to attend all lectures. Approximately one day per week was designated as a "work day," on which attendance was made optional. The syllabus listed the "work days"; however, the course veered away from this calendar early on, and a revision was written by the instructor.

Students were required to read the assigned units of the text, as laid out in the syllabus, attend the lecture on the unit, and then do the worksheet for that assignment. They were also required to complete the writing assignments, given well--a month in one case--in advance of the due date. The work days were intended to serve as open time for students to type assignments if they did not have access to a typewriter at home; or to study, or to bring their rough drafts of letters or other written assignments to the instructor for non-graded corrections; or to ask questions of the instructor, who was available in the classroom. They were also expected to correct their worksheets, marking them with the aid of an answer book (four were provided), and submit those sheets to the teacher.

Lecture and the Use of the Text

During lectures, the class sat quietly, heads bowed over textbooks, while the teacher read their assigned reading to them. Mrs. Bell carried the text and voluminous notes to the lectern; however, she "read straight from the book," as more than one student put it. She did supplement the text extensively with examples of the matter under discussion. The class rarely participated, while Mrs. Bell read the text, added examples on the board, or orally, or gave out handouts-- which she also read aloud to the class. Such student questions as there were did not relate to the content of the course, usually, but to the test questions, or other required behaviors in the course. One student made a couple of challenges when the instructor was in error--misreading an item in the text, for example.

Teaching Style

This course is reminescent of high school English courses. Students seemed to be reading along in the book, although other behaviors such as staring into space, balancing checkbooks, making faces, doing worksheet assignments, were frequently noted. Mrs. Bell's lecture was delivered in a monotone; the course content was broken down into the smallest possible components. Mrs. Bell's dissatisfaction with the lack of examples of writing in the book has already been mentioned; she overcame that by creating many handouts, with examples of "good" and "bad" writing-- letters, opening sentences, etc.

Apparently, Mrs. Bell's teaching experience--in business colleges throughout the state, as well as at the community college--has taught her to present material in this minute fashion. Her review sheets for tests are an example; they included what areas the students would be tested on (annotated to the text, in one case), what type of questions would be asked, how much each section would be counted in the test. The reviews also included simplified rules for students to memorize for the test, which further explained the material covered.

Students' Reactions to Lecture Style

The most adverse reaction occurred one day after class, when a student cried out in a loud voice: "I'm B-O-R-E-D!" (spelling the word out). She said in an interview:

> And it seems like she just reads the book to you and she goes through everything and you're just going, "Ugh!"

Another student, who seemed restless in class, but who answered questions correctly, explained:

> It is so boring, I can barely stand it...If you just read, you can read that material. And she's just reading straight out of the book, that's what's so boring and stupid to me. I don't even read it, because I don't want to hear it that many times.

Without reading the text, this student seemed to do well in the course; she comes from a fairly properous suburb in a large city, and has had a better-than-average education. While some of the younger students were critical of the course, the older woman, who had been a teacher, was less critical:

> She may be the other extreme, a little bit too thorough, a little bit too much education.

This woman, who has a Bachelor's degree and has taken graduate courses, characterized her skills level in English as "really bad." She studied at length, paid close attention in class and asked questions, taking constant notes. She expressed delight with the course when it was over.

Another Anglo student, in her early twenties, commented:

> I think it's a good--it goes over some things that I had forgotten completely about since high school, and I have been out of high school since '76. So it's given me a good review.
>
> I think she's a good teacher, but I think that she's very redundant, that she goes over things too many times. And too much, and I think she should go over something explicitly and ask if there are any questions; and if there is, then (explain), but if there isn't (sic), then just keep going. Tends to read from the book too much too. Or just keep going over things.
>
> Interviewer: Does she go straight down the text?
>
> Student· Pretty much so. But in a way that's good, because there are some people that really need that and they might be too shy to ask a teacher to explain something. So in a way that's good. I get bored; I've got a very short attention span, so I tend to go off on my dreaming and stuff like that.

Interviewer: How do you prepare for a class typically?

Student: I don't.

Interviewer: I just wondered. Do you read the material or do you know that she's going to go over it?

Student: I know that she's going to go over it. This stuff, I've already had, so I know about it.

...But also, I think that course tends to be a little bit boring sometimes too. Giving examples that are funny or humorous of something like that might help, giving examples that people can relate to, but it is pretty boring. That's a hell of a course to teach.

This student is Anglo, young (23), middle-class, and answered questions correctly in class; she attributed her English skills to private high school education.

Strategies for Dealing with Written Materials

Mrs. Bell's teaching style, with its concern that students be presented with information in as unambiguous and complete a form as possible, was reflected in the strategies she told students to employ in dealing with written materials. The most obvious strategy was notetaking; but she also employed mnemonic devices (including sight and sound triggers). Some aspects of these strategies will be discussed in the section on teaching methods used in teaching English in the program as a whole; at present, the discussion will be confined to specific strategies presented in the business writing course.

Taking Notes

In this class, students took notes. The first day of class, Mrs. Bell told them to take notes in their texts, and showed them her edition, which is copiously annotated, underscored, highlighted, etc.--just about every operation that can be performed with print was represented. She told the class exactly what words to underline in their text and also instructed them to number items that appeared in a list embedded in the prose of the text. She continued this practice throughout the semester, using her text as an example. The students appeared to follow the example--several had margins in their texts which were solid with note, or pages that were nearly all highlighted. An older student said:

> Really what I do is mark up the book. I read it before I come to class and use a highlighter. And then when I come to class, she lectures directly from the book, almost, most of the time. Then I just take a red pen and star the things, and so that way when I go back to review for a test, I know what she had stressed.

Teaching by Rote

The instructor would frequently tell students "don't memorize this item, but go over it again and again until you are thoroughly familiar with it " One student, when asked what that meant to her, said "Memorize. You bet," a translation, which seems accurate. Mrs. Bell also frequently told students specifically to memorize lists or rules in the text. One in particular, which was referred to often, was a list of "trite or objectionable words and phrases" they were to avoid.

In a later section of this report, there will be some discussion of the implications of this approach to teaching English: at present, the strategies Mrs. Bell suggested to her students will be described.

One interesting approach Mrs. Bell suggested involves memorizing the following list of verbs and their tense formations; she wrote on the board:

lie	lay
sit	set
rise	raise

The she told the class that they could learn to differentiate between these two groups of words if they remembered that the "i" in the first set could stand for "intransitive." Thus, they would know that these words do not take direct objects. Mrs. Bell called such a device a "memory hook."

The other similar ploy she suggested involved the formation of plurals in words that end in "f" or "fe." Mrs. Bell read the "rules" for other plural formations in the text to the class, such as making words that end in "y" or "ey" plural; this is a fairly straightforward operation. Then she went down the text to the formation of plurals of words that end in "f" or "fe"; she gave examples, such as "calf/calves," and "chief/chiefs." The irregularity of the examples seemed to strike her and she referred students to that section of the text. She told them that they should "know the rules" for each word. But, interestingly, she expanded on this by saying that they "should look at the words in the text very carefully. to visualize the examples in the book." She went on to say that they should use the "fe" or "f" ending of the word as a "signal" to "call the list to mind visually." On the other hand, when the class came to the irregular plurals, such as "child/children," "mouse/mice," she told them just to "memorize."

Visual signals were apparently very important for Mrs. Bell's own strategies with text. She marked her text elaborately, as has been noted. Her personal preference may also have accounted for her emphasis on writing exemplars, used so often in her handouts to the class.

Mrs. Bell used aural behaviors also to check for correct use in writing. She instructed the class to say the phrase to themselves when deciding whether it was proper or not: "After all, you don't say, 'I is,' do you"? Frequently, she made this appeal to the "sounds right" approach. In an interview, she was asked about this strategy:

> I've mentioned in here several times that just because that sounds right to you doesn't mean that it is. It's because you've heard it that way and said it that way that it begins to sound right to you.

> But what I want you to do is to learn the right way, and say it the right way, so that that begins to sound right. And then you'll recognize it and that's not something that most of these students are going to learn in this class, with the amount of time we have.

One student, asked about this procedure, said:

> Well, some people they know by the way a sentence sounds and how things sound...And you do have an ear for it if you've been raised from--But I also think that comes from grade school, how they taught you, too, in the very starting.

However, spoken English tends to be less formalized than written English; for example, meaning is also conveyed by vocal inflection, gesture, facial expression. A complicating factor may be that not all student speak or hear "standard" English in their homes. They may not have the aural patterns that the "sounds right" test demands.

Mrs. Bell also taught students a set of questions to ask in order to figure out the part of speech: "how" for adverbs, "what" for subject, "to whom" for indirect object, etc. For example, if the class was considering a sentence: "John gave Dick the ball," Mrs. Bell would ask the class as a whole: "To whom did John give the ball?" "To Dick," responded a student. Mrs. Bell would say, "Dick is the indirect object, answering the question, 'to whom'; you don't say, 'to who?', do you?" Again, the implicit assumption is that the student knows the difference, by ear, between "who" and "whom." This may not always be the case.

Student-Instructor Interaction

During the lecture, the instructor would pause after reading a unit, saying "Any questions?" Then she would wait for one or two seconds and move on. Rarely were there any questions. This frustrated her very much; at one point during class, she remarked: "I expect everyone to get a good grade on the text, since no one has any questions!" At another point, she pleaded with her class: "Ask questions. I'm constantly asking questions and I get blank stares. Please, please ask questions."

One student commented on this situation:

> A lot of people probably already know it and a lot of people just stop paying attention probably, and a lot of people might, maybe some people are embarrassed to ask, like God, everybody in here knows. Now, she's pretty good though; there's been some teachers that would really make you feel like a jerk for asking questions, like "oh my God, I can't believe you're asking that." Mrs. Bell's really good, really taking the time to explain it to you and that's good, too. She gives you respect.

Bearing in mind that the student was attributing motives to other students, some of her reasoning should be considered in light of Mrs. Bell's assumptions about spoken language. It is likely that boredom with the material was causing inattention, thus silence; the majority of the students in the class have had the material before, and may know it.

The third reason: "some people are embarrassed to ask" needs to be examined in more depth.

As Riesman has noted (1980:189), community college students often come to the college with low levels of self-esteem, and records of difficulty in school, particularly with reading and writing. This is not the profile of a student who is at ease in class partcipation. Moreover, in a course which instructors feel should be largely remedial, as the grammar part of the business writing course is, students may feel that admitting ignorance is too demoralizing. Three of Mrs. Bell's teaching strategies unwittingly reinforce this silence; she assumes that all students are familiar with spoken "standard" English; she uses phrases such as, "Now, most of you remember this," assuming that they learned the material in high school. Both of these strategies may create barriers for students who do not understand the material; if they ask questions, they would have to admit ignorance.

Students who may find it too intimidating to ask questions publicly do consult with the instructor on a more private basis, during the "work" periods. Mrs. Bell is seated at a desk, instead of standing at the lectern during lecture; student would come and sit at a low stool by the side of the desk, and go over material in worksheets, or hand her rough drafts to criticize. Some of these sessions were quite long, about twenty minutes; they were also friendly. She also had office hours before class for students to come and consult with her in private. Whether they did so frequently or not is not known.

Course Content

Business writing aims at teaching students correct grammar and format for business communications. The course also attempts to teach students a particular language style, suitable for businesses, which is loosely identified as "business communications." In the following section, some characteristics of this style and its uses are examined.

Language Style

The instructor handed out a "communications checklist," which was a set of criteria in the form of questions, which students were expected to use to criticize their prose. There were four categories: "concise," "clear," "accurate" and "complete." Under the heading "Is It Concise?", students were told to include only "the essential facts, words, and phrases." Under "Is It Clear?" the handout directed them to decide if the "level of language (was) adapted to the reader," if the sentence structure was clear, and if each paragraph contained only one main idea. Under the category of "correctness," the questions were, "Is the information accurate?"; "Is the letter free from crudities of grammar, spelling, punctuation?" Under "completeness" students had to decide if the prose gave "all necessary information" and answered "all reasonable questions the reader might raise." Finally, under the heading "Appropriate in tone," the questions were:

Will the tone bring the desired response?

> Is the writing free from words that may arouse antagonism or negative feeling?
>
> Is it free from stilted, hackneyed, or legalistic words and phrases?

As mentioned above, students were directed to avoid words listed in the text under the heading "trite" or "objectionable." These words were common business jargon, such as "we remain." "enclosed find," and so on. The list was repeatedly referred to in class, during lecture and on tests.

Function of Student Writing

Mrs. Bell stressed the idea that "effective communication achieves the desired result." In other words, a sales letter is effective if it causes a sale; a report is effective if it conveys the proper information, etc. Different sorts of writing tasks were assigned to students both in and out of class: sales letters, memoranda, reports, resumes and letters of job application. Students were taught to consider the audience for the writing (in-house memorandum to a superior, sales letter to a prospective client, etc.) and taught strategies of approach, tone and word choices. Some of these will be discussed in the following section on sales letters. According to classroom observation and research in the literature, business writing is characterized by the "you approach," which Mrs. Bell frequently cited and expected students to use and recognize. Essentially, the "you approach" is a sensitizing concept, requiring that students take reader reaction into account when writing. Jack E. Hulbert discusses this in detail in a description of desirable characteristics of good business writing. Writing about the aims of business writing, he said:

> Effective business writing must be a product of logical thinking guaranteeing that the reader will understand its meaning, not an act of faith that the reader will somehow be able to decipher the message. (Hulbert, 1980:152)

To achieve this end, Helbert (and Mrs. Bell in the classroom) recommend "analyzing the audience," which Hulbert defined as "making the audience do what you want them to do." "Analyzing the audience" is a variant of the "you approach" taught in Business Writing:

> A primary objective of business communication is to gain sympathetic understanding of one's message in order to evoke desired responses from readers, and writers greatly increase their chances of achieving this objective by carefully considering audience characteristics. It is well known that readers react most strongly to messages which affect them directly or with which they can empathize. It is only human nature for readers to be more concerned about themselves than about writers or the companies they represent, and they are more likely to read a message when they see the pronoun "you" rather than the pronouns "I," "we," or "us."

> Audience analysis helps the writer focus on the reader and, whenever possible, show the reader how he or she will benefit from doing as the message asks. By practicing audience analysis, writers find it easier to perceive situations from the reader's viewpoint, and to demonstrate that they are aware of and interested in doing something about the reader's needs and interests. Even the simplest request obtains a better response when the reader is shown the personal benefits to be derived from compliance. (Hulbert, 1980:152)

This emphasis on using writing to get the results desired by analyzing and then manipulating the audience is the core concept in the writing section of the Business Writing course. This notion was a constant theme in the lecture, the text, and evaluation of student writings. In the lessons on sales letters, which follows, some of the specific strategies for putting this concept to use were presented by the instructor.

Sales Letter

Mrs. Bell opened the discussion on sales letters by giving out a supplementary handout she had prepared. Students were told in lecture that the criterion for success of a sales letter was whether the reader bought the product. Mrs. Bell turned their attention to the handouts; she had copied exerpts from actual sales letters she had received. The first section of the handout concerned types of language students were to emulate, in order to create desire in the mind of the reader. These were basically adjectives which appealed to the senses, or emotions, as these examples indicate:

> "fragrant; golden-brown; rich; tender morsel"; "jimdandy muffins" (taken from an advertisement for pancake batter mix)
>
> "smoothness of polished ivory" (taken from an advertisement for wrapping twine)
>
> "message of welcome"; "individual service; human, friendly" (a bank advertisement)

The next topic on this discussion of sales letters was the importance of an eye-catching opening sentence. Mrs. Bell referred students to their handouts, where she had more examples; these were of good or poor opening sentences. The poor or "colorless" openings included:

> Your attention is called to the fact that...
> We enclose a copy of our new price list.

(Both of these openings were also examples of "trite" or objectionable phrases so often mentioned in class: "Your attention is called," "to the fact that," "we enclose" are all unnecessary phrases.) The good opening sentences were in the form of questions:

> Are you the sort of person who makes snap judgments?

Mrs. Bell recommended the use of questions as attention-getting devices; she told the class that the question mark alone made them stand out in prose. Other examples of "good" opening sentences included imperatives, such as:

> Increase your earning power.

Or students could use declarative sentences, assetting great benefit at low cost to the reader:

> You can get one million readers a day for only $44.

These example sentences and questions were characterized by different forms of heavy emphatic devices, such as italicizing, underlining, capitalization of entire words, use of quotation marks around words to add emphasis, exclamation marks. Subtlety was not encouraged.

To close their sales letters, students were directed, in lecture and the text, to use the closing to induce the reader to take the desired action; in other words, to close the sale. Their handout included samples of this strategy, such as:

> Just take your pencil and fill in the enclosed card--with the understanding that you are placed under no obligation whatever; then mail the card in the business reply envelope.

In this case, the writer has provided all needed materials: the card or order form and a pre-addressed and stamped envelope. The tone of the prose is interesting; the use of the word "just" minimizes the effort required. There is a sort of hypnotic quality to these directions: just do this simple task, followed by the reassuring phrase "under no obligation whatever," and the smooth "then mail the card" in the envelope provided. Care was exercised not to alarm the reader with complexity. Another variant of the same technique was included on the handout:

> Please sign and mail the enclosed care NOW so that you may take advantage of the present low rate. No stamp is needed. (emphasis in the original)

Again smoothly, the writer opens with the courteous "please," switching to the urgent capitalized "NOW," following up with the reminder that the reader could lose out on the "present low rate,"and winding up the pitch with the reassuring note that "no stamp is needed."

Judging by the prose style in these examples, students are being taught to write to a reader who is impressed easily by gimmicky punctuation, motivated by profit and appeals to the senses or sentiment. This hypothetical reader is also monumentally lazy and easily frightened off. Effort of any kind bothers him or her, and the strain of subtlety or complex concepts are beyond his or her capacity. He or she likes to be flattered, enjoys displays of interest in their character ("are you the sort of person who makes snap judgments?") or feelings ("friendly, human bank"). Presumably, these strategies have been found to work in the enormous direct mail sales industries; by these means the American public is encouraged to ignore the fact that they are not more than an item in a mailing list, now often stored in computer memory, a "personalized" line in a word processor.

It should be noted that the sales letter is only one form of business communication--one with which many secretaries may never come into contact in the course of their careers--and that research in the workplace itself is needed to determine the entire corpus of letter types that office workers may be called upon to use.

Testing Procedures

Six tests were called for in this course by the syllabus. These were of two types, those calling for short-answers to material covered in the text and those calling for students to write business communications from directives.

The instructor divided the material in the class into two areas: "theory and principles" of business writing, and "practice." Tests were always preceded by intensive reviews which have been discussed in the foregoing section on presentation of the lesson. Students were also directed to use their notes, including those in their texts, and their worksheets to review for the tests.

Student Preparation for Tests

In interviews, students described how they prepared for tests. One student replied:

> For a test, now, I will sit down for forty-five minutes or half an hour to review it. And Mrs. Bell does give us very, very good things to look to see what's going to be on the test...Well, I studied for like half an hours for my last test, using the review sheets, I only made ninety on the test, but I was pretty pleased with that. But one of my friends hardly even studied and she made a hundred and five on the test.
>
> Interviewer: OK, where did she get all that?
>
> Student: Well, she had a very good--Well, I had good instruction too, cause I went to (private school) and they have a pretty good education. She went to (another private school)...and they really were very good.
>
> Interviewer: What kind of things would you go over for the test? Do you have anything in particular?
>
> Student: I have problems with the nominative case and the objective case and how the nouns are used. I really have to really look at those and really pay attention to what they are--the object of the preposition and things like that.

Another student described her study process, which was dependent on her notetaking:

Interviewer: How do you review for a test?

Student: I re-read the notes and if there are things that you've been told to memorize, I attempt to memorize them. If you have been told to memorize something, I attempt to memorize it.

Interviewer: And sometimes she'll say, "I don't want you to memorize this, just be very familiar with it."

Student: Well, that, to me, means memorize it You bet.

The instructor provides detailed review sheets, handouts, worksheets to students before the class; she also goes over the plan of the test in general to the class before the test. (The liveliest discussions of the semester concerned what would be on the test.)

The Final Test

The instructor was very interested in changing some of the ways in which the course was taught. She told the researcher that she was considering changes in the evaluation process and invited the researcher to follow the process of the test, from the examination date through the final grading. Then, she suggested that they sit down and talk about the instructor's ideas for improving the grading system.

The Test Situation

The last test of the semester was not a "final" in the sense of being a comprehensive overview, the instructor insisted; she even called it the "last" test, to avoid the idea of a "final." However, this test combined both testing over the text, lecture, handouts-which the instructor calls the "theory" part of the course--with a letter-writing assignment. Students were given an hour to complete their tasks and hand all materials in.

Until publishers recently started charging for tests (which had previously been provided free with texts), instructors sometimes used commercially-produced tests; now they prepare their own.

The Test

The test was in two sections. The first section was intended to test student understanding of basic principles of business writing; the second section was the letter-writing part of the test. In the first part of the test, there were three divisions. The first, Part I, was titled "Principles of Communication." This was a list of twenty statements, counting as 20% of the test grade, which students were to mark true or false, for example:

T F Effective business messages result from effective thinking.

T F Proofreading is a vital final step in the preparation of an effective message.

Part II of section one was called "Analysis for Effective Expression." There were five different questions/tasks, which counted for 10% grade. The directions were:

> On the line preceding the number, indicate your selection of the most effective expression by placing the letter representing the expression.

A sample question might be of use to prevent confusion:

3. Which is the most positive of these five sentences?
   a. Talking is permitted during the break only.
   b. You may not talk at any time class is in progress.
   c. Do not talk during class time.
   d. You are prohibited from talking during class.
   e. Talking is not allowed during class time.

(The correct answer is (a).)

Part III of section one was called "Rewriting Letter Excerpts"; it counted for 10% of the test grade. In this section, students were required to rewrite sentences deleting or changing unnecessary, or trite words and phrases. For example:

> We hand you herewith the price list you requested.

Until students had completed this first segment of the class, they were not given the second or "letter-writing" part This was to prevent cheating, which the instructor said she suspected had occurred in previous tests. This suspicion was based on the high scores of some students who usually did poorly, but sat next to people who usually did well. Students were required to hand in the first section of the test to receive the second part; they could, after completing the second part, go over the first part for errors. Apparently, the instructor thought that the better students would hand their first sections in, safe from the prying eyes of the poorer students.

The second section was the writing part. Students had a choice of two tasks: they were given an exemplar of a "poor" letter, supposedly written carelessly and in anger, and were supposed to correct it and tone it down. The other option was to take a rough draft with many grammatical and typographical, spelling, usage errors and produce a correct final copy. Their editing and corrections were to be done on the test page itself and handed in with the final copy. This was sixty percent of the test grade.

Students worked quietly during the hour. Most of them finished well before the deadline, but a few were still working at the end of the hour. Since this was the last day of class, the final few minutes of the hours were taken up with students saying goodbye to the instructor. She told them that their grades would not be available for a day or two.

Student Performance and Instructor Expectations

The instructor had written all of the test herself, with the exception of the second letter which students were supposed to edit. The instructor said that she had designed the first section of the test very carefully, to test students' knowledge of the different ideas she had presented in class. She invited the researcher to see her the day after the test to disucss the test results and her own ideas about better grading procedures.

The instructor was not happy with the test results. She had tabulated the number of incorrect answers on each question of the first section of the test. The results were an unwelcome surprise. In Part I, the true/false section, students did poorly; for example, question 2 was missed by 16 out of 19 students; 15 missed question 5. She was upset by these results because she had tried to design both questions in particular to test students on ideas that she thought were especially important:

> This was, of course, the objective part of the test; and I wanted to see what questions most of them, where they missed the questions. And these are things that I have pointed out to you about them.

(She had told the researcher the day of the class that both of these questions were designed to test students on items she has covered in class.)

> That, I wanted to see how they did on them, so I have gone over them in class, mentioned them so many times. And I felt like that they should have learned them, and yet you can see sixteen out of nineteen missed (question 1) and fifteen out of nineteen missed (question 5).

She stressed the importance of these questions:

> Course, the reason I do (count up the misses), out of interest, for one thing, but if I ever use that test again, I might want to do one of two things: either teach, be sure, you know, teach them that I emphasize those a little more, which sounds like I'm teaching to a test, but not really. Because they are major principles of communications, of letter-writing
>
> Interviewer: This is as much a test of your own teaching as it is of them?
>
> Instructor: That's right. Yes. And no. Yes, it is. Somehow it didn't get across to them. Now, whether that's my fault or whether it's theirs. you wonder. Because I've tried to say it many times, and I have written it in comments on their letters. Things like that. So, but at any rate it did not get across to them, or maybe it was the way the question was stated, which is something else that may be...You know, there're a lot of things that could be involved there. A lot of them have been absent which means that

maybe they weren't here when I emphasized those things in class, and I don't think I could blame myself, from that perspective. But then, I would be more inclined to think that it's possibly the way the question is stated.

The questions students did so poorly on in this section were:

2. In writing a favorable response to a request for an adjustment or a claim, the main thought of the opening sentence should be to tell the reader that his request has been received.

5. The primary goal of a business letter is to build good public relations for the writer's company. (emphasis in original)

Both of these questions involved ideas which the instructor had indeed stressed repeatedly in class. In question 2, she was testing to see if they knew to avoid the expression "your request received" and similar expressions. She frequently told the class this phrase is redundant, since without receiving the request, the reply letter would never be written. In question 5, she was trying to test to see if students had understood the definition of effective communication as "getting the message across" or "achieving the desired results." Building good public relations is a secondary goal.

The test results show that students either did not understand the points, or ideas, or that they failed to understand the ideas as they were presented in the test. In question 2, students may not have understood the point in that long sentence. In question 5, students may have forgotten about getting results, in the light of the great emphasis in the course on politeness to the reader.

In Part II, students did very poorly overall:

1. 17 missed this
2. 13 missed
3. 7 missed
4. 2 missed
5. 19 missed (the entire class)

These were the directions for the questions of Part II "On the line proceding the number, indicate your selection of the most effective expression by placing the letter representing the expression." The questions were drawn by the instructor from an older published test. We will look now at the questions that caused the students the most difficulty, beginning with number 5, missed by the entire class.

5. Which is the best choice of words for the beginning of a routine business letter?
   a. I am happy to be able to answer your July 1st letter.
   b. Yes, we will gladly permit you to use our meeting facilities.
   c. I have received your request of July 1.
   d. This will acknowledge receipt of your July 1st request.
   e. This is to inform you of our willingness to comply with your July 1st request.

The instructor was baffled by students' poor performance:

> And the fifth question, which is not that difficult to do, I thought--To me, it was just really a fairly simple one. Everybody in class, of nineteen students, everyone missed it. Even the very best students.
>
> OK, now in all of the possible replies, except the second one, you refer in the first sentence to the July 1st request. Well, one thing, in three of the five (possible answers), you wrote July first as "July 1st," so that is one clue right there, that those three should be thrown out on the grounds of incorrect usage.. And the answer I got the most, actually, was C, where that is not the case; it has "July 1."
>
> But the point, on these five ..and this is something that I tried, I thought I had tried to emphasize--maybe I didn't get it across--is that you don't really have to refer particularly to the July first letter. It's obvious that you have received that letter or you wouldn't be answering. It's one of those trite expressions, or what we call "objectionable expressions" because it's obvious. I wouldn't even be writing this letter if I hadn't received theirs. And particularly since theirs was a request and I'm granting the request. So the correct answer is B. "Yes, we will gladly permit you to use our meeting facilities." So all you need to do is to start out with your answer...And not one person got it...But it seems so simple to me.

The second-most frequently missed questions in this part of the test was question 1, which 17 people got wrong:

1. Which of the following statements is the most concrete description of a typist?
   a. A good typist
   b. The best typist in the typing pool
   c. A very good typist
   d. The best typist of the six dependable ones in the typing pool
   e. An exceedingly good typist

The correct answer was (d). Again, students have a new task to perform: selecting a "concrete description" rather than an "effective" one. Possibly, in a given situation, any of those sentences would be the most effective to use. In this testing situation, the most "effective" is (d). Mrs. Bell was trying to test students' understanding of her use of "concrete" in business writing: giving all needed facts which are precise, provable and impossible to misunderstand. In other words, students were expected to see that (d) is the least vague sentence, the most descriptive of the abilities of the typist.

Students apparently found the task beyond their capabilities. The instructor wanted the students to assume that a more elaborate description, which placed the typist into a context against which to judge his or her typing abilities relative to the typing abilities of a stated number of others, in a specific locale, was the desired "concrete" description. But that assumption on the instructor's part demands more skill in test-taking than understanding of the concept of "concrete" versus "vague" writing.

Thirteen out of the nineteen students missed question 2:

2. Which of the following sentences conforms least to the you-viewpoint strategy?
   a. You will be happy to know that we now have drive-in banking service.
   b. At $4.45 each you will reap a nice profit of $1.55.
   c. Your selection of Charlotte's Candies should reach you by the 26th.
   d. Your request to use our auditorium for your meeting must be denied at this time.
   e. As a profit-minded seller, you will appreciate this new feature.

Again, a new set of directions and task is given to students. The correct answer is (d), which is not only negative but does not attempt to soften the blow with any protestations of regret, or sympathy for the addressee. Item (c) should have been eliminated outright because the "26th" is not preceded by the month. Each of the sentences contains the mandatory "you," as a deliberate means of testing if students knew the difference between the concept of the "you approach" and the simple use of the pronoun. But, on examining the remaining sentences, there really is not much attempt to relate the message to the reader's own interests. Items (b) and (e) both appeal to the profit motive, which is presumably an interest of the reader of business letters. But, actually, all of these are rather callous little sentences, filled with presumptions and imperatives, "You will be happy," "you will reap a nice profit," "You will appreciate this new feature."

The task, then, was to find a negative reply to a request which was not laced with expressions of sympathy and turned into something positive. This was covered in class, but apparently students did not transfer that knowledge to this testing situation.

Part 3 was the section in which students were required to rewrite sentences, editing to eliminate "trite" or "objectionable" sentences. Students did well on this section:

one miss 1. Please find enclosed my check for $8 25 for a Hawthorne exerciser. ("Please find enclosed" is redundant.)

no misses 2. We hand you herewith the price list you requested. (Eliminate "we hand you," "herewith," and "you requested" as redundant.)

two misses 3. We are enclosing our check in the amount of $580. (Eliminate "we are enclosing," "in the amount of" and rewrite as "A check for $580 is enclosed.")

no misses 4. We wish to thank you for taking the time to anaylze our sales appeal. (This should read, "Thank you for taking...")

four misses 5. We wish to call attention to the fact that your check which you said was enclosed was not enclosed. (Should read "Your check did not arrive," or somethint similar "We wish to call attention," "to the fact that," "which you said was enclosed," and "was not enclosed" are all redundant and taboo.)

The Test Results: Discussion

Students seem to do well on the letters. Most students chose to edit a letter rather than to rewrite one. It would seem from the results of this test that students did well when given prose to correct. They did poorly when asked to abstract knowledge from their texts and lecture. However, the instructor commented that the students had done well on earlier tests in which they had to compose the letter, so it is difficult to generalize.

Evaluation Criteria for Prose

When Mrs. Bell graded the students' prose, she used the standard, common in the entire program, of the "mailable" letter. In an interview, she explained what a "mailable" letter was:

> What is "mailable" and what isn't? You can tell if (you) have good content, but if (there are) misspelled words, if there are errors; if the form's all wrong, (if there isn't) a neat appearance, attractively set up on the table (sic), it's not "mailable."

In this context, "mailable" or "sendable" as it is sometimes called, is drawn from the work world. A letter is considered acceptable, or "mailable," in this school context, if--in the opinion of the instructors--the written item would be good enough to mail from a business.

This criterion is the source of grades as well. The Business Communcations instructor elaborated on this:

> And I have to just look at this, once I get all the errors marked, comments written on it relating to the content, and then I start back. Then I sit back and look at the letter, and try to weigh in my mind for the total perspective of that letter. Is this an A letter? Of course, I would think that that would be excellent. Is this a B letter? Which I would consider "good," but could be improved. Is it a C letter, which I would say, in my mind, is acceptable, but is just OK. Gets the message across. May it would have some punctuation errors. but could probably get by...And if I cn't justify that it's even a C letter, it's a D letter...I didn't give Fs to any letters if they did them. If there are a lot of errors, then the letter is non-sendable, and does not apply the principles that are supposed to apply to that assignment.

It should be noted that students were allowed to give their rough drafts of written assignments to the instructor before handling them in for a grade; the instructor would perform essentially the same process described above, and return the draft to the student, who could then re-write the letter from the copy which was, in effect, edited by the instructor.

Discussion: Implications of Vocational Literacy Education

Let us review the arguments that have been made in this section. (1) There are close linkages between the organization of office work and the formal training of office workers: (a) the student populations of office occupations programs are drawn almost exclusively from populations already established in the office work sector of the labor market--women and minorities. Students in these programs often have previous work experience in these fields, previous training (e.g., in high school vocational tracks), or have in some way been socialized into the perspective that office work is appropriate for persons like themselves. (b) Office work and training programs for office work are linked in that many training modules, textbooks, and so on are produced by corporate organizations otherwise not engaged in the manufacture of educational materials. This is possible because, (c) training in office occupations has been formalized and routinized in the same fashion as has been office work itself. (d) This routinization has consequences for the organization of instruction within the office occupations programs (e.g., the centralization of curriculum construction, etc.). (e) This organization of instruction has consequences for the pedogogical practices of individual instructors: specifically, a close adherence to the syllabus and the instructional materials (e.g., reading from the book, etc.). In other words, the pedagogy itself is routinized.

(2) The knowledge which the students acquire in these courses is itself embedded in highly formalized and routinized systems, with rigid and mechanical rules of application. This formalization extends beyond the merely technical matters of, say, knowing how to use a typewriter or an adding machine, into the realm of language usage itself. There are, for example, specific fashions of initiating the language act of "the routine business letter"--fashions independent of the content of the letter, the relationship between sender and receiver, or the semantic or syntactic norms of everyday language use. It is far from clear that the putative sender and receiver (i.e., the two business persons) would recognize or note correct or incorrect attendence to this fashion of initiation.

The result is an occupationally-specific style of language use. This occupational-specificity manifests itself on two levels: the language use is confined to an occupational group--the office workers--and serves as a diacritic marker to differentiate them from the higher-status personnel in the offices, who have much greater discretionary power over their language use; also, use of the occupational "dialect" is confined to the context of written language use in the office--there is no reason to suppose that the formalized language of office work is used by secretaries outside the office, or in casual conversation in the office.

The identification of occupationally-specific uses of language is not new, though to find them being inculcated in relatively autonomous training agencies may be. What concerns us here are the implications of this specialized language use for our conceptualization of "literacy development."

Elsewhere in this report we have drawn upon the distinction between usage, referring to the "linguistic context," the rules of the language system; and use, referring to the "communicative situation," the use of language to accomplish communication (see Widdowson, 1978). In our study of the developmental reading classes we suggested that, in essence, matters of *use* were being presented as matters of *usage* through the decontextualization and rigid categorization of text. In our study of office occupations we see another process underlying a *use* to *usage* transformation: an extreme routinization of *use* into a relatively small, highly formulaic set of procedures or "recipes." This routinization is a product of the routinization of the work that office workers do (articulated through the links between occupation and training program). Now, when students learn their linguistic recipes in the office occupations program, does this constitute "literacy development"? The question should give one pause: what does "literacy development" mean in the context of *use*? The vast majority of studies on reading have concentrated on the *beginning* reader, the young person in an early encounter with written language. This focus seems to have induced an overemphasis on the issue of literacy development as the development of *usage* skills, at the expense of a consideration of the *use* of written language in real-world communicative situations (though one may argue that for the child just learning to read, the major written language communicative situation *is* the school classroom). The emphasis on literacy as usage produced a notion of "literacy development" as a generally progressive increase in one's control over written language usage, the acquisition or improvement of context-independent skills for dealing with text (text-in-general, not real-world texts used for communicative purposes). What the analysis here suggests, however, is that there is another, perhaps more crucial aspect of "literacy development": the development of *communicative competence* with written language, learning how to *use* written language. Our examination of the office occupations program suggests that written language use may vary with real-life categories such as "occupation" (though obviously we have not provided a technical description of the differences between office work discourse and other forms of discourse--this would require an extensive examination of a large corpus of written texts produced in an office setting. For suggestive methodological procedures, see Odell, 1981). It would seem then that one form of "literacy development" consists of learning the appropriate (written) communicative behaviors for specific (written) communicative situations. To use an analogy from the more familiar area of sociolinguistics, one could speak of "language development" in terms of increasing control over the normative grammar and common lexicon of a given language, but there would also be a "language development" consisting of a speaker's ability to partake in an increasingly wider arena of speech events. Thus, one can speak of "language development" in terms of one's increasing control of the "linguistic context"--the ability to communicate in unmarked speech situations, *and* one can speak of language development in terms of one's ability to speak appropriately in marked situations--to be able to "speak" English is not the same as being able to "lecture" in English or "tell a joke" in English. One of the crucial differences between written and spoken language, however, is that there are relatively few, if any, unmarked speech events in written English (personal letter-writing is one of the few possibilities that comes to mind). There is a general, if tacit, assumption in discussions of written language that one is not simply concerned with mere *communication* (after all, one can violate most of our orthographic conventions without seriously affecting the communication of content--though the violation of these conventions carries illocutionary force) but with "performance" (in Richard Bauman's sense, rather than Chomsky's). As the study here suggests, performance conventions may be intimately related to the division of labor and the structure of the labor process.

It goes without saying that the two senses of literacy development suggested here are related, but the relationship is problematic. In many cases, it seems almost certain that highly marked written language conventions (e.g., the "you-viewpoint" etc.) such as those found in office occupations are useless outside of the office work setting. The "literacy" of the students in the office occupations program is indeed being "developed"--but it is literacy in a purely technical-instrumental sense. Such a conception of literacy development may be acceptable to those whose interest is essentially to train competent workers (for example, Sticht, 1975). One should bear in mind, however, that in teaching literacy as a routinized formulaic work skill, one is transforming what is potentially an extremely powerful tool of learning and communication into a sterile set of recipes for doing a job.

REFERENCES

Barrett, Nancy S. "Occupations, Earnings, and Career Opportunities," in THE SUBTLE REVOLUTION: WOMEN AT WORK, edited by R. Smith. Washington, D.C.: The Urban Institute, 1979.

Benet, Mary Kathleen. SECRETARY: AN INQUIRY INTO THE FEMALE GHETTO. London: Sidgwick and Jackson, 1972.

Berg, Ivar. EDUCATION AND JOBS: THE GREAT TRAINING ROBBERY. New York: Praeger Publishing, 1970.

Borcher, Sidney and Joyner, J. OCCUPATIONAL PERFORMANCE SURVEY. INTERIM REPORT. Columbus, Ohio: The Center for Vocational and Technical Education, Ohio State University, 1973.

Braverman, Harry. LABOR AND MONOPOLY CAPITAL: THE DEGRADATION OF WORK IN THE TWENTIETH CENTURY. New York and London: Monthly Review Press, 1974.

Commerce America. "Communications Industry Replaces Manufacturing as Keystone of U. S. Economy," August 15, 1977, p. 16.

Howe, Louise Kapp. PINK COLLAR WORKER. New York: Avon Books, 1978.

Hulbert, Jack E. "Basic Communication Competencies, Section A: Writing," in THE CHANGING OFFICE ENVIRONMENT, edited by M. Johnson. Reston, Virginia: National Business Education Association, 1980.

Kandel, Thelma. "What Women Earn," Parade Magazine, September 6, 1981.

Kanter, Rosabeth Moss. MEN AND WOMEN OF THE CORPORATION. New York: Basic Books, 1977.

Odell, Lee. "Writing in a Non-Academic Setting," Paper presented at the TEXAS WRITING RESEARCH GROUP CONFERENCE. Austin, Texas, March 25, 1981.

Rosenbaum, James. MAKING INEQUALITY: THE HIDDEN CURRICULUM OF HIGH SCHOOL TRACKING. New York: John Wiley & Sons, 1976.

Smith, Ralph. "The Movement of Women into the Labor Force," in THE SUBTLE REVOLUTION: WOMEN AT WORK, edited by R. Smith. Washington, D.C.: The Urban Institute, 1979.

Sticht, Thomas (Ed.). READING FOR WORKING. Alexandria, Virginia: HumRRO, 1975.

Treece, Marla. "Written Communications," in THE CHANGING OFFICE ENVIRONMENT, edited by M. Johnson. Reston, Virginia: National Business Education Association. 1980, 66-75.

Uthe, Elaine F. "Growing Need for Office Personnel," in THE CHANGING OFFICE ENVIRONMENT, edited by M. Johnson. Reston, Virginia: National Business Education Association. 1980, 1-8.

Widdowson, H. G. TEACHING LANGUAGE AS COMMUNICATION. Oxford University Press, 1978.

CHAPTER VIII
PURPOSES AND MOTIVATIONS IN THE USE OF TEXT: A CASE FROM THE CHILD CARE PROGRAM

Minority Recruitment into the Program

One of the primary reasons for taking the Child Care program as a locus of study was the very large proportion of students in that program who belonged to minority ethnic groups: 29% of the students majoring in Child Care are Black (Blacks account for less than 9% of total college enrollment) while 19% are Mexican-American (compared to 12% for the total college). This gives Child Care the highest combined percentage minority enrollment of any program in the college. There are also a disproportionately high number of students majoring in Child Care who come from low-status educational backgrounds: 21% of the majors entered the college with GED's (less than 7% of the total college population have GED's). Finally, there were indications that Child Care majors may be somewhat worse off economically than the general population of the college: 24% of the Child Care students received financial aid; only 6% of the general population did. Over 95% of Child Care majors are female.

More generally, Child Care belongs to a group of "service" programs, which along with some manual "craft" vocational programs (e.g., Auto Mechanics, Welding), generally have higher concentrations of minority students as majors than other programs in the college. (Another section of the report deals with this issue in much more detail.) Using college statistics and 1970 Census data for the metropolitan area served by the college, we found a relationship between the vocational programs that had high percentages of minority majors and the occupations that had high percentages of minority employees. One of the problems we posed for ourselves, then, was to determine just what form this relationship took: were Black and Mexican-American students being recruited or counseled into programs which were associated with their traditional occupational roles? Or did the relatively high minority enrollments represent students already employed in child care returning for additional training? To begin to deal with these questions we surveyed three classes in the program that we were observing. We had 70 responses (we were unable to separate majors and non-Child Care majors for analysis; we do know that at least 54 of the 70 could be considered Child Care majors). (There are around 100 majors in the entire Child Care program.) The percentages of these students who entered the college with GED's, who were Black or Hispanic, matched the percentages given out by the college for the entire program. In our sample, 19.7% of the students entered the college with GED's (21% for the program); 32.3% were Black (29% for the program); and 21% were Mexican-American (19% for the program).

However, if the three classes are examined separately we see a different pattern, one which it is worth our while to examine in much more detail.

This chapter written by Jan Nespor.

Three Types of Classes in the Child Care Program

In Child Care I there were 26 students, 26 of whom were Child Care majors; only 4% of the students in this class had entered the college with GED's, 11% were Black, and 26% were Mexican-American. Twenty of these students worked, 11 in Child Care centers, and the average age for the class was 26 years. Child Care I is an "introductory" class (with the lowest course number for the program in the college catalog), though it is not required as a prerequisite for any other class. The course content of these classes differs from the others of the program in an interesting way. Child Care I is the only course in the program that does not require fieldwork. The course description in the catalog contains the statement: "This is not a course on working with children, but the information will help one to better understand children." The course is also much more "routinized" than any other course in the program: that is, the subject matter, the assignments and evaluative criteria and means are much more explicit, specified, and rigid than for the other courses in the program. Other courses have a variety of activities, "loose assignments" (see the descriptions below), no fixed course syllabi, or very flexible syllabi. Child Care I is structured around textbook assignments, lecture format, tests on specific subject matter covered in books and lectures. The sequence of course material is also more highly structured (e.g., a section on "prenatal development," then "birth process," then "the infant 0-12 months," then "the toddler 12-24 months," etc.). The subject matter of Child Care I is also much farther removed from the world of child care practice than the content of the other courses: (especially at the beginning of the course) students are required to learn long litanies of terms, categories and concepts which are not given in relation to actual child care work (the students must learn to define, for example, the terms "mean, median, correlation, significance, maturation, growth, clinical method, experimental method, gene, dominant gene, recessive gene," etc.). Students are sometimes referred to specific pages of the textbook for the definitions of these terms, or to handouts; and in many classes the instructors spend much of their time writing terms and definitions on the blackboard. Evaluation in these classes is by test. The tests usually consist of one section asking for definitions of terms or explanations of concepts, with another section asking for a slightly more elaborate discussion of a term or concept. (For example, on one test we observed being administered, one section of the test asked for the definition of "placenta," another section asked "What are the functions of the placenta," and another section asked "What is the placental barrier"?. The definition counts 2 points, the first question 10 points, the third question 20 points. Students who gave a definition for "placenta" almost always answered the other questions in almost exactly the same language as the definition--and usually received full or partial credit for these answers. Thus very few questions on the tests in Child Care I actually go far beyond asking for definitions of terms.)

In the Child Care II class there were 21 students, 25 of whom were majors in Child Care. Just under 10% had GED's, 33% were Black, and 14% were Mexican-American. Only 8 of these students worked, and few of them worked in Child Care centers (we couldn't get an exact number). The average age in the class was 21 years. The Child Care II curriculum differs strikingly from that of Child Care I: there are no assigned texts, although the instructor occasionally hands out photocopies of articles from books or magazines (such as TIME, etc.) The purpose of the course, as stated in the syllabus, is "To develop a better understanding of dynamics in both the family and the larger community." There is no specified course content, although the instructor does list a group of topics to be dealt with (e.g., "the family--in this country, and other countries, how many ways can we be a family?" etc.). The way the instructor deals with these topics is, however very fluid, very unstructured. In some instances films are shown--films are also used in Child Care I, but much less often Moreover, the films in Child Care II are usually narrative films telling a story (e.g., about children whose parents had divorced), while those of Child Care I usually deal with bodies of school knowledge also dealt with in textbooks or lectures (e.g., a film on Piagetian experiments with infants, shown after lectures and readings on these topics).

The instructor in Child Care II does not lecture, does not ask questions in class that call for recall of information from tests or lectures, or for judgments based on information in the text. Instead, most of the class is spent in "common-sense" discussions about children and parents. The instructor calls upon the students to use their personal experience and values to discuss some of the issues raised in the films and articles--there are no "right" answers, and the instructor rarely tries to steer the students toward any specific conclusion. The classroom discussions are dominated by the students and tend to disintegrate in rambling bull sessions (at which point the instructor usually steps in and reasserts the topic under discussion). The instructor often uses the tack of small group discussions on topical areas to keep the discussion in limits. For example, in one class, after viewing a film on family types, the class was divided into five groups, each of which was assigned a topic (e.g., "Pros of nuclear family structure," "Cons of nuclear family structure"). The students were not required to relate their performance with anything in the film or in an article they had read (extracted from a non-textbook) dealing with the same subject--although in fact, when defending their statements, people would occasionally cite the film, not the article, for support.

Evaluation in Child Care II follows no explicit framework or schedule--indeed, several of the students expressed some uneasiness over not knowing how they were doing in the course. There were a few very short quizzes at the beginning of the semester (dealing with matters covered in class discussion, and very liberally graded): but as the semester went on, classroom performance became a matter of taking part in class discussions and of preparting and presenting reports to the class (e.g., each student had to report on workings of a service agency in the community--they were allowed to pick the agency of their choice).

Unlike Child Care I, which dealt with a body of academic knowledge as defined by textbooks--what we might call "reified" knowledge, as it is presented as a self-sufficient body of objective facts unrelated to practical activity--Child Care II deals with the framework and assumptions through which one views the diversity of everyday life. The nuclear family is not discussed as part of a lesson on kinship systems or the domestic group cycle--it is discussed with reference to the "extended" family, the single-parent family and other familial situations with which the students, as future child-care workers, may at some point have to deal. The purpose of the discussions is not to supply the students with a body of facts or objective knowledge with which to analyze the influence of family structure on children; rather it is to break down their normative presuppositions about what the family should be like, about what is "natural" or "unnatural" in family life. The purpose of the course is, in other words, to "sensitize" the students to social diversity, to provide them with broader, more relativistic frameworks or schemas through which to interpret the varieties of practical situations which they might encounter.

The Child Care III class has 23 students, all of whom are Child Care majors. Forty-three percent have GED's; 52% are Black, 21% Mexican-American. Twenty-two out of the 23 students work in child care centers. The average age for the students in this course is 33 years. This course is designed specifically for students already working the child care field who are seeking to acquire a Child Development Associate (CDA) credential--a sort of accreditation given out by a nationally-based organization. The credential is not awarded by the college on the basis of course work; rather, the college fulfills the role of "trainer" to child care workers, many of whom have been working in the field for years, but who are not required by the agencies they work for to obtain the CDA credential. Most of the students in Child Care III work for child care agencies which receive government funding--many are being paid by these agencies to attend class, or are at least given time off to do so.

Instruction in the Child Care III class is geared almost exclusively to practice. The instructor will talk very generally about different attributes of children; students will ask very specific practical questions about the appropriate way of handling problems in child care. The discussion is laced with anecdotes about practical experiences. There is almost no elaborate lecturing by the instructor; students do not as a rule take notes. "Fieldwork" is required of the students in this class, and evaluation is on the basis of how they actually perform in their teaching situations. (The CDA credential itself is awarded on the basis of on-the-job performance, as assessed by a committee including the "trainer"--usually the college instructor, a representative of the Consortium administering the CDA program, and a parent with a child in the child care center.)

The sketches presented above of the three child care courses shows them dealing with three rather different types of knowledge: (1) What we have called "reified" knowledge--defined by textbooks and experts in the field, knowledge abstracted from practical use; (2) "Sensitizing" knowledge--frameworks and perspectives through which to interpret everyday situations; and (3) What I propose to call "recipe" knowledge--the teaching of specific, explicit, practical techniques for dealing with common everyday situations. The distinction between these types of knowledge will be elaborated elsewhere. We need only comment here that it is probably unusual to find a course or class concerned exclusively with any one of these types of knowledge. The Child Care courses we observed certainly tended to concentrate on only one type; but there were many, if minor, instances of mixing (for example, students in Child Care classes--which were concerned primarily with "reified" knowledge-would frequently, by their questions, try to relate course content to practical affairs: a discussion about genetics, for example, prompted several students to ask the instructor about the relation between their eye color and that of their parents or children).

Enrollment Patterns and Literacy Demands

The enrollment breakdowns by course and the brief characterizations of the different organizations of instruction in these courses is intended to suggest to the reader that (1) different student populations are being served by the program in the different courses and (2) that the different courses present the students with qualitatively different types of literacy demands. The first of these assertions is reasonably easy to demonstrate; the second requires a much more detailed analysis of classroom instruction than has been provided in the sketches above.

The Different Populations Served by the Child Care Program

The table below shows the breakdown for each of the classes sampled, for the entire sample, and for the entire program (for college statistics):

	% WHO ENTER WITH GED's	%BLACK	%MEXICAN-AMERICAN	AVERAGE AGE
CHILD CARE I (N=26)	4%	11%	26%	26
CHILD CARE II (N=21)	9%	33%	14%	21
CHILD CARE III (N=23)	43%	52%	21%	33
TOTAL SAMPLE (N=70)	19.7%	32.3%	21.1[illegible]	N/A
TOTAL PROGRAM (N=97)	21%	29%	1[illegible]	N/A

Drawing conclusions from these tables is not straightfor[illegible] because we are not sure how the college classifies students--for example, are students (such as those in Child Care III) who are seeking a CDA credential counted as Child Development majors? I assume that they are; otherwise, it is difficult to see how one could arrive at the percentage for majors with GED's in the total program. Another problem is in determining how "financial aid" is classified by the college. If financial support from one's place of work is considered "financial aid," then it seems that a large proportion of all the students in the program on financial aid are working students receiving support from their child care centers (i.e., students such as those in Child Care III).

Taking these problems into account, it still seems safe to say that a sizable part of the minority (especially Black) enrollment in the program, and the vast majority of the students with poor educational backgrounds (GED's) are students already employed in the Child Care field, who are returning to the college to take special courses designed to lead to the acquisition of a credential. In other words, the student population profile of the Child Care program probably has more to do with the hiring policies of child care agencies than with the recruitment policies of the Child Care program or the counseling or placement policies of the college in general.

We can hypothesize, then, that one of the most important ways in which the college "serves" minority groups is by offering credentializing training in occupations areas in which those groups are already established. While we were unable to examine the social structural context of the child care field (as was done in Office Occupations), it seems worthwhile to conjecture, on impressionistic bases, that the movement of white middle-class women into the field of child care (and the increasing role that government has played in funding child care) has fostered a trend toward "professionalizing" the field and has forced child care workers from minority groups already established in the occupation to return to school to credentialize themselves. Alternatively, it may be that the child care agencies most likely to require credentials (i.e., those with government funding) are also those most likely to hire minorities.

At any rate, we have to consider the possibility that one of the important reasons that community colleges have larger shares of the minority population enrolled (compared to public and private four-year colleges) is not merely their open-admissions policy. It may also stem from a shift in the job requirements in fields in which these minority groups have traditionally been established. It is interesting to note that the students in the Child Care III class who are returning for credentials are significantly older than the students in the regular program and have poorer educational backgrounds (of the 10 people in this class with GED's, 6 were Blacks, 3 Chicanas, and only 1 an Anglo). This reinforces our suspicion that there has been a change in the credentials required for employment since these older students entered the field.

One final note, the relatively small Black enrollment in the Child Care I class seems to be a function of the location of that class on a different campus from the other two courses. As explained in another section of the report, one campus of the college is located in a Black area of the city, serves the majority of Black students enrolled in the college, and is generally perceived by students and faculty of the college as being "the minority campus": this is the campus on which Child Care II and III were located; Child Care I was on another campus in a mixed-ethnic area of the city, serving primarily night students.

The Concept of "Literacy Demand"

A more important point arises from our observation that the organization of instruction in classrooms seems to vary with the type of knowledge being taught. It may be of some use to the study of classrooms to redefine the organization of instruction in terms of the "literacy demands" that are placed on students. By the concept of "literacy demand" I wish to refer to the communicative and performative problems that the students must solve in order to acquire a "good" (A, B, or C) grade in a course--problems which require the students to process, produce, or manipulate visibly conveyed language.

The distinction between "communicative" and "performative" is inserted here in recognition of the fact, noted by Sinclair and Coulthard (1975) and others, that much of the language use in classrooms has little to do with the communication of information from one person to another: If a teacher asks a student "What is the capital of France?," it is not a general request for enlightenment by the instructor, but the setting of a performative problem for the student who must not only know what the capital of France is (or know how to appropriately excuse him/herself for not knowing), but, perhaps as importantly, knowing how to respond in an appropriate fashion. Just as it is not sufficient to know the words to a joke in order to tell the joke, so it is not sufficient to simply communicate the information to the instructor (and should you call it "communication" if, as is almost always the case, the instructor already knows the answer, and the students know she/he knows)--the information must be displayed or performed in a fashion appropriate to classroom discourse. On this point, see Keddie (1971) and Mehan (1979). To take an example more closely linked to literacy, proper spelling is better seen as a performative requirement, since a moderate degree of orthographic irregularity would not hamper communication; another example of performative problems would be the typing and format requirements in the Office Occupations program.

The phrase "visibly conveyed language" refers, of course, to what linguists refer to as the "channel" of language use. However, despite the insistence of people such as Dell Hymes that one must deal with communicative systems--including all channels of communication--all work on classroom discourse has focused exclusively on the analysis of speech (and to a lesser extent, "non-verbal communication") (see Bellack, et al, 1966; Sinclair and Coulthard, 1975; Johnson, 1979). This neglect of other forms of classroom language use mystifies those of us who have observed classrooms in the community college in which textbooks and blackboard writing powerfully constrain and structure language use. One explanation may be that previous researchers, coming primarily from the field of linguistics and interested in linguistic rather than classroom or educational problems (see especially Sinclair and Coulthard, 1975), simply edit out all non-speech uses of language in the situations they observe (or video-tape, as Johnson's, 1979, case). If this is in fact what occurs, we feel that these researchers have failed to gain an adequate understanding of the classroom situation and that many of their conclusions may be vitiated by a failure to understand the ways that teacher-pupil language interaction develops overtime and comes to be based on shared meanings that have arisen out of the historical context of particular classrooms (see, especially, Adelman and Walker, 1976). Another possible explanation for the previous neglect of the uses of written language in the language in the classroom may have to do with the fact that many of the studies of classroom discourse we have cited focused on classrooms containing small, kindergarten or grade school, children. (This is especially true of American studies, less so for the English work.) If this is the case, then the discrepancy between previous work and our observations in community colleges may reflect an aspect of school systems--a gradual or not so gradual shift in emphasis as the student passes on to higher levels in the system away from classroom organization based on speech and towards classroom organization based on written language.

Whatever the causes of the discrepancy between previous studies of classroom language use and our own observations, we are faced with the problem of how to approach the study of written language use in organizational settings. We find that many of the theoretical frameworks and programmatic statements from sociolinguistics are very problematic when applied to language use in the "channel" of written language. Indeed, one of the main problems with the sociolinguistic model (as elaborated, for example, in Hymes, 1974) is that the differences between spoken and written language are explained away as mere differences in the means of transmission ("channel"). No consideration is given to the possibly dramatic implications this simple difference in channel may have (for some discussion of the unique aspects of written language, see Klieman and Schallert, 1978; Goody, 1977; Olson, 1980; Stubbs, 1980. None of this work, however, with the exception of Olson's, which is in experimental psychology, presents the results of any original research on the uses of written language). Consider just one aspect specific to written language--the fact that it is temporally indeterminate. That is, unlike the usual forms of speech, it can be stored and retrieved over an indefinite span of time. In some instances, one of which I examine in detail below, we find that an instructor's "lecture" or presentation of the lesson to the class is directly structured by a written language product: a textbook is read aloud or the teacher uses personal written notes that have been prepared before class. As the lesson proceeds the teacher may employ a very transitory form of written language--black-board writing--to frame or emphasize certain portions or his or her speech: the blackboard speech may reformulate the instructor's speech in a more precise or restricted form. The instructor may give a condensed explanation of a point verbally and then refer the students to a specific page of section of a textbook for elaboration. The students may or may not produce or reproduce some of the instructor's speech or blackboard writing in the form of notes, which themselves may take a highly condensed or indexical form. The students may also, outside of the classroom, read the text and augment their notes of the classroom lesson with notes from their reading. The students may then ask or respond to questions in a later class on the basis of these notes. The points I wish to make with this hypothetical construction are, first, that the relationship of "spoken" and "written" channels can be highly problematic, and second, that the utilization of written language allows classroom discourse to be coherently (or at least cohesively) organized in the face of major temporal disjunctions. The instructor's presentation of a given lesson may take place in three or four one-hour class sessions, spaced out over two weeks or more, yet the lesson itself forms a single unit on the basis of the cohesive ties of written language--the questions the instructor asks in the fourth class session may require the students to use notes taken in the first class session. The entire lesson, taken as a coherent unit, consist of all of the class sessions given over to that unit: it forms a "literacy event" (on the analogy of "speech event"), the temporally disjuncted nature of which is possible only because of the semi-permanent nature of written language. This argument must appear a bit strained, so let us consider in some detail now the teaching of a single lesson. We will argue in the course of this examination that written language can serve as the primary language channel in classroom settings--in its own right, and as a structuring agent of spoken language, and, furthermore, that the structuring of the communicative interaction in the classroom can be understood only by examining the classroom in its organizational context.

The Units of Analysis

In selecting a unit of analysis for the study of written language use in the classroom, I go somewhat against the grain of most discourse studies. In previous studies of classroom language use, the general approach has been to begin with a linguistically-defined unit of analysis (code-switching, turn-taking, M. C. Johnson's "classroom discussion cycle," instructor solicitations, etc.) and to examine the distribution of occurrence, or the functions of this usage. Rarely are the social characteristics of the speakers examined, outside of a recognition that the teacher is the dominant figure in the setting--and, of course, when teachers and students belong to different speech communities, they are sometimes presented as ideally representative members of these communities (so that conflicts or misunderstandings in the classroom can be represented as products of the incongruity of the differing norms of the two speech communities, rather than as being produced by anything in the organizational context, in the content of the lesson, in the personal relations of teacher and pupil, or any other non-linguistic factors). The results of this concentration on linguistically-defined units of analysis has been an over-emphasis on the formal characteristics of language in the classroom: we are given "rules" to describe the patterning of speech in the classroom without ever being given any information about what is said or why it is said, and only a minimal amount about who says it. In conjunction with the tendency we have already noted for these studies to concentrate only on verbal speech, the linguistic unit of analysis produces a view of the classroom--each individual class session--as a closed system. There is no history, no temporal element in these discussions of classroom discourse--so, for example, the ways in which teachers ask and pupils answer questions are seen as general "rules" that supposedly apply universally to classroom situations, rather than as shared systems of behavior built up over time in interaction between instructor and student. We have noted, for example, that the type and frequency of students' questions generally change over the course of a semester depending on the way instructors handle these questions. The type and frequency of instructor elicitations also appears to vary in some way with the subject matter or type of knowledge being taught. We also noted that in those cases in which we were observing courses training students in areas in which they already had some practical experience, subject matter with which students had practical experience produced more discussion and giving of accounts and anecdotes by the students than other types of subject matter which were controlled more thoroughly by the instructors. This also raises the point that different classrooms, as one goes through the school hierarchy, will have students of different ages and experiences with language use and schooling; it seems reasonable to suspect that these differences will produce different styles of behavior in the classroom. However, none of these considerations can be accommodated into the usual framework which begins analysis by focusing on a linguistically-defined unit. The result is that, whatever these studies tell us about language, they tell us next to nothing about education of the students and instructors. Indeed, in some cases the authors are quite explicit in pointing out that they are interested only in the linguistic aspects of the situation. Sinclair and Coulthard, for example, claim to have selected the classroom as a locus of study only because it simplified the situation influences that had plagued their attempts to study "desultory discourse" (1975:6). They criticize the work of Bellack, et al. for the "flaw" of mixing pedagogic and linguistic structure--only linguistic structure is relevant to them (1975:20). Such an approach, I suggest, is nothing more than a new attempt to separate form from function in linguistics--a rather startling accusation, since the people I hold responsible for this attempt are those who have for a long time now been telling us that "structure follows function" (Hymes), and publishing books on "the function of language in the classroom." The problem, I think, lies in a rather impoverished notion of "function" or "use."

There is, I suggest, a rather general tendency for sociolinguists to (1) try to specify a "function" for each identifiable linguistic unit. This has the effect of (2) localizing the function to a very small, highly specific situational context. This has the effect of obscuring possible multiple functions or ambiguous functions. (3) Discourse strategy tends to be ignored--that is, the function of the discourse as a whole, rather than that of its individual pieces. Thus, in analyzing classroom discourse, the speech of teachers and pupils is segmented into "moves," "turns" and so on up the hierarchy, and the analyst tries to write co-occurrence rules linking these pieces of the discourse. This may seem harmless, but to follow this route entails the assumptions that the context of the discourse and the content of the words make no difference. These units are formally defined, and their functions are specified only in terms of their place in maintaining the normal conversational patterns. Such functions are therefore localized in that "function," according to this analysis, is completely determined by immediate conversational interaction. Finally, the overall strategy of the discourse--whether it be to transmit knowledge, test the students, maintain order, or whatever--does not enter into this analysis. What we have instead resembles nothing so much as an attempt to develop an autonomous syntax of discourse.

The Uses of Literacy in the Child Care I Course

The position taken in this research is broadly related to that of Labov, which uses "socially or culturally valid units as a basic framework for analysis, and attempt(s) to investigate the way the linguistic behavior patterns itself according to such categories" (Sankoff, 1974:44-5). The linguistic behavior analyzed is that, both written and spoken, which is used by instructors and students as the instructor attempts to transmit a specific body of knowledge to the students. The socially valid unit we take as our basic framework is the lesson on "cognitive development" in a Child Care I class. This lesson covered three class sessions, and a part of a fourth, spread over two weeks, and includes the test given the students over the lesson. This test counted for approximately 1/12th of the course grade of the students.

To analyze the teaching of this lesson it is necessary to begin with a consideration of the purposes of the course in which the lesson is embedded. Courses are not naturally occurring phenomena and cannot be taken as "givens" as is sometimes done. Rather, they are very carefully socially-constructed settings: the lesson, and the way it is taught, must be understood in the context of this construction process.

There are at least three people involved in the organization and structuring of the Child Care I course: the department head of Child Care, who is officially responsible (to the college administration and ultimately to the Texas Education Association) for the curriculum offered in the program. The department head has influence primarily in deciding on the types of couses that are to be offered and in arbitrating disagreements between other members of the teaching staff. The second person with influence on the course is a full-time instructor in the program who once taught the course (there are presently two sections of the course offered--both taught by part-time instructors). This person's influence derives in part from her full-time status (which allows her a larger role in the decision-making process, and also allows her to influence the part-time instructors of the course whose attachment to the college is transitory) and from her "expertise" (in having taught the course previously--thus having, at one time, almost all responsibility for the organization of the course). The third person with influence over the conduct of the course is the part-time instructor who actually teaches the course. As we shall see, the part-time instructors have influence, not only on the actual performance of the classes, but on the construction of the syllabus and the selection of the textbook.

Rationale for the Course

I argued earlier that the type of knowledge taught in the Child Care I course was "reified" knowledge, an autonomous system of categories and concepts never explicitly related to any practical activity. The comments of the department head in part reflect this interpretation:

> From my own experience I know that you can be a good child care giver without understanding genetics, for example. Some of the best child care center teachers I have known never had courses like that, and yet their natural instincts for children are real sound and they work well with kids. However, when I think about a professional child care giver, I'm really sort of interested in upgrading the profession of child care teacher, for a number of reasons, a lot of which are class, sex, and race related if it comes right down to it. It's been ill-considered as a profession. I pondered a long time how to upgrade that thing; I really do feel that it's a very crucial and difficult to do well, and yet it's consistently underplayed as not a very valuable thing and easy to do and anybody can do it and it's women's work and all that. So when I think about really turning out people who feel like competent professionals, I want them to learn the lingo; I want them to learn theory; I want them to feel comfortable with a lot of those kinds of things above and beyond being nice to kids... those courses may not be real tangible aids, but the knowledge does directly translate into how you make decisions, and your values and how you deal with the real world.

The full-time instructor who had previously taught the course makes a similar comment:

> Well, on the surface it might seem like it's kind of icing and not really necessary. But, I've taught that class, for several semesters, and I think it's kind of important that they know what kinds of things, in terms of behaviors, and characteristics, are things that we can't do anything about...and a lot of people here have never had exposure to that sort of thing. So I'm really in favor

> of giving them little bits and pieces, dashes and dabs of this and that. And if it goes through and they think at some point in the future 'Hey I remember studying that,' then terrific. If they use it in some way, that's even better. But if it just kind of fades off, well then at some point they have had exposure to it. Those courses, I see the main benefits in being giving people an idea of what to expect at different ages. That infancy and toddler courses that you're thinking of--it's amazing from a number of perspectives that a lot of people don't really know what you can expect from a toddler. Very frequently we have much higher expectations than we should for children; we act on our own adult assumptions and expect behaviors from a child that is not at all possible. And if you're going to be working with children from eight hours a day at a very crucial time of their life and have that much influence on them you ought to know what's reasonable and what's not.

The department head and the full-time instructor concede, then, that the direct utility of the "reified" knowledge of the Child Care I course is problematic. Both, however, feel that exposing the students to such knowledge may have worthwhile consequences. The department head feels that equipping child care practitioners with theories and concepts to drop aound increases the prestige and status accorded child care--as a means of "professionalizing" the occupation. In addition to this, the department head and the full-time instructor both see exposure to the theories of child development as a means of 'sensitizing' the students to purely developmental aspects of children's behavior.

Organizational Process in the Construction of the Curriculum

However, the department head and the full-time instructor are not ultimately responsible for constructing the curriculum of the Child Care course. As the department head explains:

> I always try to coordinate the course with the instructor. Because they often have their own biases about things or about books they like to use. Also, I work with them to develop the syllabus, rather than hand them something written in cement. I sit down with them, give them my ideas, things I feel should definitely be covered, and then pretty much they have quite a bit of leeway to develop it the way they want... After we talk about the course, my perceptions of what it should at least contain, then they go and write up the syllabus and I'll see it later. Occasionally people will say 'Why don't you look at this before I have it printed up'?, but I don't demand that... I ask teachers to keep a complete course file for me, including handouts, articles, anything that goes on in class. I keep a complete set that's pretty up to date. If you were going to teach Exceptional Child next year, I could show you what preceding teachers have done in the same course using the same text.

This approach is quite different from the pattern found in other college programs, especially those dealing with the teaching of "skills" (detailed in other sections of the report) such as reading and writing. In skill courses we have noted a very well-defined tendency for department heads and full-time instructors to assert control over the curriculum--selecting textbooks, standardizing syllabi, in some areas even constructing the tests that part-time instructors must use, and the outlines, study guides and exercises around which classroom interaction is organized. Such routinizing practices are ways in which the department heads and full-time faculty can exert control over the part-time faculty members' classroom instruction (and, incidently, reveal the peculiar utility of written language for this type of control). This follows from the assumption by the department head/full-time faculty that they possess an expertise which allows them to make decisions about how the "skill" should be taught. In "content" areas or courses, such as Child Care, the department heads/full-time faculty are more inclined to see themselves as expert in certain areas of the field, but lacking the background to organize certain areas of knowledge in the program--they therefore rely on part-time instructors with special practical expertise or training in those areas. (In some vocational areas such as Data Processing, where there is a high rate of technological change, administra tors feel that reliance on part-time instructors active in the field is the only way in which they can keep their programs up-to-date with changes in the field.) As the department head put it:

> There are a lot of different courses in this program that require a lot of different expertise. I would never teach the Nutrition course; I'm not a nutritionist; I get a nutritionist to teach it, so what would I be doing writing the nutritionist's syllabus for his next semester? He's ten times the teacher I am in that field.

Such a reliance on "expertise," however, requires a certain act of faith by the department head, who must rely essentially on the recommendations given for a prospective part-time teacher and on the candidate's credentials. In most instances, one may assume that the system works well: the department head gets recommendations from the advisory board, the Department of Human Resources, and from child care practitioners in the field, and can examine a candidate's training in the specific area for which an instructor is being sought. However, while this system probably works fairly well for areas in which expertise is clearly definable (e.g., nutritionist), there are problems when one deals with an area, such as Child Care , which by its very nature is not directly related to the practical activity of child care, and for which academic training is perhaps the only defining characteristic of expertise. Indeed, in interviewing the part-time instructors of this course, we found that their model for teaching the course was to fall back on their own academic training in the area:

> ...She (the department head) explained that it would be a development course, and it wouldn't be a course about teaching techniques. I asked her questions about what I needed to do, if the course work was entirely up to me, if I needed to pick a textbook, if I needed to come up with a curriculum, or if they had standardized things that were set out, if they had standardized exams. I knew that I wasn't going to be the only person teaching the same course, and I wondered if they tried to equal them out by giving the same exams in both courses, and things like that...She told me no, the standard

> thing was they had the same textbook they ordered and since it was too late to get another textbook, I needed to use that one. But I could change it later if I wanted to...She said that she had a file of previous exams that I could look at and was welcome to use, but I didn't need to limit myself to that, that I could develop my own curriculum and exams, as long as it covered the real general outline of the course. (the real general outline, it turns out, is the course description in the college catelog)...About three sentences or something. Which is very general, but it sets the limits pretty definitely. I have a pretty clear understanding of what the limits were, and I had no understanding of how to go about teaching the course necessarily, except from being a college student for so many years. I had had that experience.

The course description in the college catalog which the instructor uses to frame his understanding of the purposes of the course reads as follows:

> CHILD CARE I: Emphasis is on the developing human organism from conception to 2 years. Topics include genetics, prenatal influences, physical development, perceptual development, the development of thinking and early social development. Psychological theory as well as experimental methodology will be discussed. This is not a course on working with children, but the information will help one to better understand children.

The course descriptions are written by the department head/full-time instructors, though they use a variety of resources to determine the content of these descriptions: the offerings in other Child Care programs in other colleges in the state; recommendations of an advisory board; and possibly input from part-time instructors. We should note, however, that there are at least two distinct audiences for the catalog descriptions: on the one hand, they are written for state funding agencies and accrediting organizations, and must therefore conform at least in a general way to the catalog descriptions of similarly funded and accredited programs throughout the state. On the other hand, catalog course descriptions are legally binding contracts with the student body, and therefore must in theory provide the students with adequate and accurate information about the content of the course. We may assume that the state agencies are the primary audience--the program and its courses must accommodate the model laid out by these agencies in order to receive funding and be accredited. The student audience is served mainly through whatever "explicitness" the catalog description contains--the idea being to protect oneself from charges of giving misleading information (and, of course, to give the student a better idea of what the course is about). The catalog course description, therefore, is part of a chain of generally similar course descriptions in a variety of institutions. The Child Care I description given above is a bit more explicit, and much more weighted towards "theory" and biological development than other community college course descriptions we looked at--a result of the department head's desire to professionalize and upgrade the status of the field by linking it more closely with higher-status fields such as psychology. Now, any course description will allow the instructor a large amount of discretion in the actual conduct of the course: the sequence, depth, and detail in which topics are covered is not defined by the course description. However, the course description does serve to "frame" the course for the instructor. In a case such as that of Child Care I in which the instructor had no experience teaching such a course and no clear idea of the department head's and full-time instructor's notion of the purpose of the course, the course description produced a frame which linked the purpose of the course (and ultimately the nature of the instruction) to the only similar model the part-time instructor had: his own experiences with psychology and development courses he had taken at the university (courses dealing with reified knowledge, usually taught by specialists in fields completely unrelated to child care). The result of this framing of the course can be seen in the difficulty the part-time instructor had in finding an appropriate textbook for the course.

Motive and Purpose in the Selection of the Textbook

We have seen that the department head allows the part-time instructors to construct their own syllabi and to teach the course as best they see fit. However, in the case of Child Care I, budgetary and administrative deadlines had required the department head to order textbooks (chosen by the full-time instructor, who had previously been the Child Care teacher) before the new part-time instructors were hired. This meant that for the first year they taught at the college the part-time instructors were constrained in their teaching strategies by the textbook they had not selected. As the department head explained, the part-time instructors did not feel that the textbook was adequate:

> We've actually gone through some changes with that text because it's been hard to find one that everybody's been happy with. We were originally using the book the (the full-time instructor) liked, and there seemed to be some reservations--about almost every book we've used for that course. (The part-time instructors) have been here several semesters now. They're both doing a real good job and are in touch with students' needs and that sort of thing. And so, with their input, we have this year chosen a new text.

The full-time instructor who had previously taught the course explained the textbook selection problem in this way:

> I went round and round with that class and I finally came up with a book I liked... I believe it was used for one semester, and they (the part-time instructors) decided they didn't like it either. The problem we have with that course is that most publishers and most schools do not break it down into infant and toddler courses and then preschool courses. Generally they're infancy to adolescence, which is what that book is. We don't need all that information. We want something that's a little bit more depthful and may be more practical at the infancy and preschool level. It's hard to find books that are at the reading level and understanding level of the people we have in the classroom and that also focus on the kind of material that we want covered.

The full-time instructor's textbook selection, then, reflects her views on the purpose of the course: to give the students some "exposure" to concepts of child development and to give them some rough information about "what can be expected from children" at various stages of development. The purpose of the course, as she sees it, is not to give the students a rigorous introduction to biological and psychological theories of child development. That, however, is how the part-time faculty seem to understand the purpose of the course (basing this assumption on the catalog course description and their own training). As a part-time instructor explained when discussing the reasons for the choice of the new text:

> We were using a text...which was pretty well written in the parts where they were written. But it was like Swiss cheese, it just had big holes in it...In terms of--it's be going along talking about something and leave out real basic, significant details. And the students complained that it didn't have a glossary in the back...it used words and didn't define them in the text or it didn't have a glossary in the back where they could turn and look at the definition.

Two points can be stressed in summary here: (1) The different understandings of the purpose of the course have effects on the way the course is taught. The full-time instructors, the designers of the course, see its function as being to give the students some very general sensitization of the influences of developmental sequences on children--in part because this represents high status "professional" knowledge, and in part to make them more sensitive to what they can expect from the children. This conceptualization is not communicated to the part-time instructors who actually teach the courses. They must rely on the formal programmatic statements found in the catalog, which seem to stress formal scientific knowledge (an interpretation reinforced by their own training in college). The part-time instructors seek the advice of the full-time instructors not on matters of purpose or goal, but on matters of detail or technique (e.g., how many tests to give). The discrepancy in conceptualization of purpose has an impact on (2) selection of textbook. The full-time instructor who taught the course previously, who saw its purpose in sensitizing the students to the influence of developmental factors on the child, choose for that purpose a rather general, loose text, "full of holes." The part-time instructors, seeing their job as being to teach "theory," sought a more comprehensive textbook (a very thorough textbook, as we shall see below). The part-time instructor's citation of student complaints about lack of a glossary in the old textbook may have more to do with the type of tests he uses, which consist primarily of requiring the students to give numerous definitions of terms, than with the adequacy of the texts for the type of course that the full-time instructor had in mind.

The Uses of the Textbook

The debate over textbook selection is, of course, also a debate over the purpose of the course and the way it should be taught. Interpreting the purpose of the course in a certain way requires that a certain type of text be used. In the case of Child Care I, the part-time instructors' interpretation of the course as being for the purpose of teaching the students theories of child development required the use of a textbook that was not only theoretically comprehensive, but was also written in a prose style peculiar to "scientific" works. The relationship between the textbook and the organization of classroom is complex and reciprocal. On the one hand, the instructors have a certain amount of discretion over how the book is used: sections can be skipped, or assigned in some order other than that in which they are presented in the book. There are, however, limits as to how far the instructor can go in segmenting the book--the book has certain minimal units (chapters, sections) which must be respected, at least in reading assignments. That is, it would be impracticable for the instructor to assign specific, unconnected pages of the text. Thus, chapters, units, or sections, (as defined by the book) are always the units of the assignment. However, the instructor may cover the same material in lecture (thus cluing the students to the relevant portions of the text) and may specifically reference particular pages in the text containing points which the students will be required to know. Again, in those courses in which syllabi are constructed by department heads or full-time instructors, the part-time instructor is constrained in the amount of discretion he or she has over reading assignments. In any case, there is a close, if complex connection between the purpose of the course, the type of knowledge being taught, the type of textbook selected, and the organization of instruction--and thus the classroom discourse.

The "Readability" of the Text

The teaching of this unit began, in a sense, at the end of the final class session of the previous unit when the instructor assigned the class reading in the textbook: Chapters 6 and 22 in the book EXPLORING CHILD BEHAVIOR, by D. Helms and J. Turner. Before briefly discussing this text, we should mention that the textbook is rather expensive ($18); also, the bookstore ran out of copies, and in some classes students went through the entire semester without books (though there were a couple of copies available in the school library). These facts should remind us that there is an important economic aspect to literacy and written language: most forms of verbal communication are "free" (though certainly not all), while almost all written language costs money. Also, the distribution of written language--the availability of texts--has some impact on what texts are used. (We have already seen in another section that the standardized reading test used by the college was selected primarily because it was widely distributed and easy to get in a short time. Studies done by library scientists also suggest that reading is to some degree determined by the distribution of written materials, see Waples et al., 1940).

It is not clear what level of schooling the textbook was written for. The authors do, however, pride themselves on thoroughness and extensive coverage:

> A distinctive feature of EXPLORING CHILD BEHAVIOR is its inclusion of standard material related to child development (i.e., Physical Growth and Development, Psycholinguistics) as well as topics fre-

> quently unavailable in most texts....In addition, other areas that deserve particular recognition are explored in separate units, including the Neonate, Principles of Learning, the Cognitive Theory of Jean Piaget, Intelligence, and Creativity. Finally, we have devoted a good portion of this book to the study of adolescence, an extremely important phase in the life span (Helms and Turner, 1976:V).

The text is divided into "Sections," which are divided into "Units" (roughly analogous to what would be called "chapters" in most books). "Units" seem to be the minimal reading assignment unit. As the instructor's assignment shows, the units are not assigned to the students in the order in which they appear in the book. Unit 6 is entitled "Cognition and Perception" (15 pages) and has three sub-units (set off in the text by spacing and large-type headings in blue): "Concept Development" (4 pages), "Attention and Memory Skills" (4 pages), and "Perceptual Development" (7 pages). Unit 22 has the title "Piaget's Theory of Cognitive Development"--30 pages dealing with Piaget's work and 13 pages devoted to criticisms of his work and alternative theories (there are nine sub-units whose headings need not be reproduced here).

Assessing the difficulty of this text is not at all simple. We analyzed seven randomly selected passages from the book, using both Flesch and Dale-Chall readability formulas (see Appendix A). The table below indicates the results in terms of grade-level equivalents:

PASSAGE	FLESCH	DALE-CHALL
1	11	17
2	12	18
3	10	12
4	11	20
5	9	12
6	7	12
7	9	18

These two readability formulas are generally considered the best readability measures and are probably also the most frequently used. (See Macdonald-Ross, 1979; Harrison, 1979). The rather sizable differences in predicted difficulty are due to the fact that the Dale-Chall tries to take into account vocabulary difficulty by using a list of frequently-used words--when words appear in the text sample that are not on this list, the reading difficulty of the passage is considered to have increased. The scientific and technical terms in the Helms and Turner book, therefore, increase the reading difficulty according to the Dale-Chall formula (the Flesch measures vocabulary difficulty only by considering the length of words--the numbers of letters in them). In addition to the discrepancy between the two measures, there is also a rather wide variation in the predicted difficulty of different passages: a range of 5 grade-levels for the Flesch, 8 grade-levels for the Dale-Chall. Clearly, even if we grant the very arguable assumptions of readability formulas--that such features as sentence length, word-length and so on can be mechanically linked to the "difficulty" of a passage of text--we are still faced with a number of problems in using the results of these measures: Which formula shall we trust? What constitutes an adequate sample of a textbook? Should the measurements of different samples be averaged and extrapolated for a measure of the readability of the entire text, or should we conclude that the readability of text may vary widely within a book, or even the same section of a book, or even within the same passage of the book? (cf. Stokes, 1978). Unfortunately, readability measures have never been compared with the ease or difficulty students (or others) have with texts which they encounter in everyday life. "Cross-validation" studies are usually done by correlating readability measures with evaluations of difficulty by teachers (see Harrison, 1979). Macdonald-Ross cites some studies done in the late 1940's showing that readership of a farm newspaper increased when it was re-written in "more readable" prose (see Murphey, 1947a, 1947b; Swanson, 1948), but it is difficult to determine the implications--why readership actually increased and whether comprehension actually increased. Klare (1975, reported in Harrison, 1979):

> ...has shown that if you take two groups of readers who are equal in reading ability and give them exactly the same comprehension test, those given a more readable version of the test passage will learn and understand more. He prepared two versions of the test passage--the original one, and another which had been rewritten in simpler prose--and found that significantly higher comprehension test scores were obtained by the group which was given the passage with a lower readability score (Harrison, 1979: 101-102, summarizing Klare, 1975).

However, it is not clear that the reading situation on which Klare's work is based is at all comparable to the types of reading situations in which students find themselves as part of their everyday experience in or out of school. An assumption underlying Klare's work, and implicit in the notion of "readability measures," is that students sit down with a piece of text--a short piece at that, longer stretches of text, let along entire books, are never considered in readability studies--and grind through it one word after another. Little consideration is given to the purpose students have in reading, the time frame available to them, the presence of other readers with whom to discuss the readings, the use of study guides to structure the reading, or the possibility that there might be alternate sources of information providing the same information as is found in the text. In other words, all situational and practical aspects of reading are excluded. The readability of text is seen as a function of text alone. In contrast to this, we argue that the difficulty of text--text meaning not artifically constructed passages, but socially valid units of written language--is a function of the linguistic structure of the text and (perhaps primarily) the uses to which that text is put. To flesh this assertion out, let us now turn to an examination of the way in which the lesson on cognitive development is actually taught.

The Lesson on "Cognitive Development"

In the discussion below of Child Care I, I shall attempt to show how the part-time instructors' understanding of the purpose of the course as being to teach theory (resulting in their selection of a comprehensive and difficult text) produces a classroom situation in which the students' difficulty in reading and understanding the text necessitates their organizing the class around lectures which seek to explain the theoretical terms included in the text in a simplified form. That is, the instructors' simplification of the course entails their reduction of the theories discussed in the book to a list of theoretical terms and concepts. The instructors provide the students with "advance organizers" (study sheets) which clue the students to the exact terms and concepts they will be expected to know (for the test). The instructor then goes over most of these terms and concepts in the class lecture, using blackboard writing as a means of reifying and emphasizing the types of definitions the students will be expected to give for the terms and concepts. Blackboard writing allows the students to take notes (they copy the blackboard writing verbatim) which can then be used for study in lieu of reading the text. Such classroom discussion as exists consists of the instructor reading the blackboard writing aloud while writing it--occasionally elaborating particular points with anecdotes--while the students copy down what is being written on the board. Students do sometimes ask questions, but these are primarily "questions on content," that is, requests for clarification or elaboration of some point the instructor is making. The instructor's questions are usually "requests for demonstration"--the students are asked what a particular terms means, they look it up in their notes and recite back to the instructor what the instructor had, in some earlier class of the lesson, written on the blackboard. The remainder of this section describes and analyzes this classroom situation in more detail.

The Use of Study Sheets

At the beginning of the lesson the instructor handed two study sheets to each student. One of the sheets simply listed a set of terms that the students should be able to define and asked some questions that the students should be able to answer on completion of the lesson:

1. Define:
    a. theory
    b. invariant sequence
    c. assimilation
    d. accommodation
    e. schema
    f. equilibrium
    g. primary circular reaction
    h. object concept
    i. secondary circular reaction
    j. tertiary circular reaction
    k. organization
    l. adaptation
2. List 4 characteristics of Piaget's stages of development.
3. What are Piaget's 4 periods of intellectual development?
4. List and describe the accomplishments during each of Piaget's 6 substages of sensorimotor development.
5. What is the root of intelligent behavior?
6. What are some things parents and caretakers can do to provide sensory stimulation for the child 0-2 years?
7. List 3 educational implications of Piaget's theory.

This is not an assignment. Students do not have to turn in anything having to do with these sheets. Rather, this is the instructor's way of telling the class what she thinks is important about the unit, what things they should be sure to know. The students we talked to put these study sheets aside until it was time to study for a test, at which time they went through class notes, and if needed, the book, to make sure they knew everything on the sheet (we'll look later at the relationship between the topics on the sheet and the questions asked on the test).

Blackboard Writing

The Child Care instructor has a very regular, predictable style of teaching: she lectures. There are no class discussions, although she will answer questions from the class and sometimes this results in students speaking to one another. Student questions and comments became less and less frequent over the course of the semester and ultimately came from only three students, at least two of whom had (a) Psychology course(s) covering many of the same topics addressed in Child Care I. The instructor relies heavily on the blackboard: in fact, she does little else then mention some topic or term and then write a condensed version of what she has just said about it on the board. She did this regularly throughout the semester, with the result that students in the class came to copy everything that she wrote on the board, but took no notes on anything else she said. The students apparently assumed that a topic wasn't important if the instructor did not bother to include it on a study sheet or write about it on the board.

The use of the blackboard also seemed to have some effect on the instructor's approach to and presentation of the subject matter. She relied heavily on prepared notes, often she copied her blackboard writing from them directly. This had the effect of working against any subtleties or qualifications being incorporated into the presentation of concepts (since there is a limit to how much you can write on the board). It also results in a tendency to disregard the relations between different concepts or processes. Often the board writing simply turned into the writing of terms and their definitions. The following extract from classroom observation notes should give the reader a feel for this (the convention adopted here is to represent blackboard writing in caps):

> The instructor began by saying that she would be talking about Piaget, and that since Piaget borrowed a great deal of his terminology from science she will, therefore, spend some time today defining terms. (This may sound reasonable, but in fact little besides the definition of terms and concepts goes on today, or in any of the other lessons this semester. Also note that the terms the instructor defines are not general "scientific" terms, but the major concepts of Piaget's theory--these definitions are the lesson.) The instructor tells the students that the relevant pages in the book are 432-442 (about one-sixth of the original reading assignment.). The instructor then writes on the board:
>
> CHARACTERISTICS OF PIAGET'S THEORY OF COGNITIVE DEVELOPMENT

"OK," she says, "first is the idea of invariant sequences, which means the sequence can't vary." Then she writes on the board:

1. INVARIANT SEQUENCE - SEQUENCE WITH WHICH CHILD GOES THROUGH STAGES
   DOES NOT VARY
   EX. STAGE A   STAGE B   STAGE C

"This is important," says the instructor, "a child has to master some concepts before moving on to other concepts." She writes on the board, to the side of what she has already written:

IMPLICATIONS
CERTAIN CONCEPTS
MUST BE ACQUIRED
BEFORE CHILD CAN
MOVE TO ADVANCED
CONCEPTS

The instructor then speaks a little about "concrete" vs. "abstract," and how the former must precede the latter, according to Piaget. However, she says all this sitting down at her desk. She writes nothing on the board, so nobody takes any notes. She gives several vivid examples, one about children at a fire station being very curious with regard to things they could touch, but unable to appreciate the more "abstract" aspects of the field trip. She then goes back to writing on the board:

2. EACH STAGE SERVES AS A BASIS FOR THE NEXT

The instructor tells an anecdote about a young, adopted Korean boy she knew who had a great deal of trouble with math skills--because, according to the instructor, he had never had "concrete" things to play with when he was younger (i.e., he couldn't advance to the "abstract" math stage, because he hadn't gone through the "concrete" stage). One of the students (a Chicano man who had already studied Piaget in a Psychology course) asks about what happens if you grow up without going through these basic stages--are you able to pick up the basics at a later age, or does it have to happen in childhood. The instructor doesn't quite answer his question, saying only that many people reach adulthood without acquiring basic skills. She then goes back to writing on the board:

3. EACH STAGE FORMS AN INTEGRATED WHOLE AND THINGS ARE IN BALANCE/ EQUILIBRIUM
4. EACH STAGE HAS OF A PERIOD (sic) OF PREPARATION WHEN THINGS ARE UNORGANIZED AND UNSTABLE
   AT THE END OF EACH STAGE THERE IS A PERIOD OF ACHIEVEMENT AND STABILITY
5. SIMILAR COGNITIVE DEVELOPMENTS TAKE PLACE AT EACH STAGE, BUT ON DIFFERENT LEVELS
   EX. A CHILD CAN WALK HOME FROM SCHOOL AT ONE STAGE AND DRAW A MAP AT A LATER STAGE.

The instructor does not elaborate any further on these concepts, but tells the class that she will now begin to define some terms, beginning with "intelligence," which she writes on the board:

INTELLIGENCE

"Piaget," says the instructor, "feels that intelligence is based on reflexes which are present at birth." She points out that this is the answer to one of the questions on the study sheet. She continues to write on the board:

INTELLIGENCE--BASED ON REFLEXES WHICH ARE PRESENT AT BIRTH AND MODIFIED AS DEVELOPMENT TAKES PLACE.

The instructor gives the example of sucking--a reflex in infants, she tells them--and points out how infants start putting anything in their mouths that they can get their hands on. The instructor then says that there are two very important concepts in Piaget's thinking on intelligence; she writes them on the board:

ASSIMILATION--INCORPORATE NEW IDEA OR OBJECT INTO IDEA CHILD ALREADY HAS.

The instructor repeats the example of the sucking child, saying that the child is incorporating a new toy, for example, into something he already knows how to do--suck.

ACCOMMODATION--CHILD CHANGES IDEA TO FIT NEW OBJECT

The Chicano man says that in the Psychology course the definition of assimilation and accommodation are given somewhat differently; other students agree. The instructor tells them to look at page 435 of the book, where these terms are defined. She reads the definitions out of the book (I give these book definitions later in this section). This silences the students, though it's not clear that they were satisfied. The instructor resumes by saying that assimilation and accommodation are part of a larger process called "adaptation." She writes on the board:

ADAPTATION--CHANGE IN RESPONSE TO NEW PERSON, OBJECT, IDEA (she reads this aloud as she writes it).

The instructor moves to another part of the blackboard and writes:

2 PROCESSES INVOLVED IN GROWTH

then under this she writes:

ORGANIZATION--PUTTING THINGS TOGETHER SO THEY WORK AS A SYSTEM.

The instructor then goes back and number "adaptation" 1 and "organization" 2. This confuses several of the students, since it puts their notes seemingly out of order. One of the confused students asks the instructor if these are stages that children go through. The instructor says, no, these are processes; the stages, she says are (and begins writing on the board):

4 PERIODS OF INTELLECTUAL DEV.
1. SENSORIMOTOR--BIRTH--2 YEARS
2. PREOPERATIONAL--2--6/7
3. CONCRETE OPERATIONAL--7--11
4. FORMAL OPERATIONAL--11--UP

The instructor says that the ages she gives are very general, that the ages at which these stages are reached vary greatly from individual to individual. However, she concludes, the order in which the stages progress is invariant.

The instructor now shifts back to defining terms, writing on the board:

SCHEMA

"This is what Piaget thought was the mind's way of presenting critical aspects of reality," says the instructor. "It emphasizes the most important features, the basic skeleton of things."

The students are lost and begin asking questions--are these processes or stages or what? Everybody writes down just what the instructor writes on the board, nothing else. So the backwards numbering on "adaptation" and "organization," and the interpolation of the "four stages" has scrambled everybody's notes. The instructor explains that her list of the four stages was just a response to a question and does not really fit in with the rest of her presentation. She apologizes to the class for messing up their notes and goes on writing up the definition of "schema":

SCHEMA--CHILD'S FIRST COGNITIVE UNIT, MIND'S WAY OF REPRESENTING MOST IMPORTANT FEATURE OF AN EVENT.

The instructor finishes writing this and looks at the study sheet she passed out at the beginning of class. She says that there's another term listed on the study sheet--"equilibrium": "It means things are balanced," she says. She continues looking over the sheet and then announces to the class that "I've gone through A-F and I've answered questions 2, 3, and 5." This study sheet is put away, and the instructor tells the students to get out the second study sheet she had passed out at the beginning of the class. This is a stapled three-page summary of the "6 Stages of Sensorimotor Period." (I will not reproduce the entire handout here. It listed each of the six stages and noted the behavioral characterisitics a child demonstrated in each of these stages.) The remainder of the class is spent by the instructor talking over (actually doing little more than reading aloud) this handout. The students asked few questions and took no notes. In effect, this sheet served the same purpose as the blackboard writing--only it saved the instructor some time.

In the class session following the one just reported, the instructor "reviews" the students on the terms and concepts she had "taught" in the previous class session.

The instructor begins the class by telling the students that there is one term on the study sheet which she neglected to define in the previous class. She writes it on the board:

THEORY--OVERALL EXPLANATION OF DEVELOPMENT

She comments that "theories" allow us to predict things and gives the examples of Piaget's "theory" of cognitive developmental stages allowing us to predict what the next stage the child enters will be. In review, the instructor says, "Let's see if you can give me the definitions of the terms we went over instead of me giving you the definitions." She then asks the class to name some of the characteristics of Piaget's theory. Someone answers: "Invariant sequence." "What does that mean?" asks the instructor. The student studies her notes and reads: "...sequences with which child goes through series, does not vary." This is an exact quotation of what the instructor had written on the board in the previous class. In like fashion, each question that the instructor asks is on something she had written on the board, and each answer is a quotation. The only real difficulties arise when the instructor asked something in a sequence different from the one in which it had been written on the board. In these cases, the instructor would sometimes coach the answers by giving the first couple of words from the definitions she had written on the board--allowing students to skim through their notes to find the place.

The instructor does not ask about anything that she had not written on the board in the previous class. Once she had gotten the students to recite her board writing, she would then go on for a while to elaborate on the term or topic, often giving concrete anecdotes and illustrations to describe what she is talking about. The students will sometimes, after reading off their notes, ask questions: "I don't really understand that. Could you explain it?" or "Could you elaborate on that?" This usually induced the instructor to give more anecdotes and examples. This would seem to be one of the main functions of the whole reviewing/reciting exercise--to see if the students had any questions on the subject matter covered in the previous class. However, there were few questions.

After finishing the review of the blackboard writing, the instructor finished reading over the handout on the 6 sensorimotor stages, elaborating on the various categories with many concrete examples--people sometimes ask where these examples fit into the topics on the handouts and sometimes ask questions of their own using similar examples (e.g., "My two-year-old likes to throw his food up in the air. what stage would he be in?," etc.) People don't take notes on this, though some will occasionally ask, when the instructor mentions something abstract: "Is that on the handout?"

One final important part of the lesson was a film shown by the instructor immediately before the test over the section was given. The instructor prefaced the film by telling the students to pay special attention to what it had to say about the concept of "object concept "

Testing the Students over the Cognitive Development Lesson

The students were tested on the cognitive development lesson immediately after the instructor finished presenting it (at the end of the fourth class session devoted to the lesson). (It is not always the case that the students are tested on the lesson just after they finish it.) There were 25 possible points on the test. As mentioned earlier, this is about one-twelfth of the course grade.

The first nine points of the test are given for matching terms with a given definition. I reproduce this portion of the test below, marking each term on the test which also appeared on the study sheet with an (SS), and marking the terms covered in class lecture with (L), noting whether they had been part of the blackboard writing, or whether they had been part of the second study sheet (the one on the six stages of the sensorimotor period).

Matching 1 pt. each

___1. primary circular reaction (SS) (L--on the second study sheet)
___2. assimilation (SS) (L--on the blackboard)
___3. secondary circular reaction (SS) (L--on the second study sheet)
___4. accommodation (SS) (L--on the blackboard)
___5. schema (SS) (L--on the blackboard)
___6. tertiary circular reaction (SS) (L--on the second study sheet)
___7. organization (SS) (L--on the blackboard)
___8. equilibrium (SS) (L--mentioned by instructor and on the blackboard)
___9. adaptation (SS) (L--on the blackboard)

a. infant tries to repeat an activity which created an interesting change in the thing around him/her.
b. infant tries to repeat a response which produced a new unanticipated result
c. child incorporates new object/idea into idea child already has.
d. infant uses variation in repeating an unexpected result.
e. child changes his/her ideas to fit new object/idea.
f. mind's way of representing the most critical features of an event, similar to a blueprint.
g. the ability to order and classify new experiences in the mind
h. a state of balance
i. change in response to a new object, idea person, depends on accommodation and assimilation.

It can be seen that all nine of the terms in this section of the test were included on the study sheet and were also defined or discussed in class--their definitions either written on the board or included on the second study sheet. The textbook definitions of these terms can be found in a relatively small section of the assigned reading for this lesson: pp. 434-441 (pages mentioned by instructor in first class session). Now, it should be apparent from the extracts from the class notes that the students could have chosen the correct answers for these terms simply by studying their notes and the study sheets. The question remains of whether they could, or should, have studied the textbook definitions--what would this have added to their knowledge? How would it have affected their performance on the test?

A word first about how new terms are defined: new terms are put in italics when introduced into the text. Definitions for new terms are usually given in adjectival phrases in the text. For example:

> One of the earliest forms of cognitive funtioning is the acquisition and categorization of concepts, the mental images that are formed to represent objects and events (p. 108).

The phrase "...mental images...events" is reproduced verbatim as the definition of "concept" in the glossary of the textbook. However, other terms and phrases used in the definition, such as "cognitive functioning," "categorization" and the like are not defined in the text or in the glossary. ("Cognition" is defined in the glossary, and it is apparently assumed that the student will be able to make the equation between the noun and the adjectival form + "functioning"). Below I give the definitions of the terms on the test, taken from the book (I give glossary definitions wherever possible):

> primary circular reaction: "A substage of sensorimotor cognitive development. Infants in this period...will repeat those behavioral patterns that are pleasurable, such as thumb sucking." (p. 706)
>
> assimilation: "Perceiving and interpreting new information in terms of existing knowledge and understanding." (p. 697)
>
> secondary circular reaction: "A substage of sensorimotor cognitive development. Infants in this period...will attempt to reproduce interesting events in the external environment which might have been first caused by accident, such as the shaking of a rattle." (p. 707)
>
> accommodation: "According to Piaget, the restructuring of mental organizations so that new information or previously reflected information may be processed " (p. 697)
>
> schema: The word used in the book is "schemata" and it is defined as "Organized patterns of thought. Sensory stimuli, objects, and events are but a few examples of schematic organizations." (p. 707)
>
> tertiary circular reaction: "A substage of sensorimotor cognitive development, in which infants...exhibit rudimentary reasoning and simple trial-and-error behavior." (p. 708)
>
> organization: This word is not in the glossary. The phrase in which it is "defined" in the text reads as follows: "Organization, the ability to order and classify new experiences in the mind, termed schemata, is a fundamental and innate process among all children." (p. 434)

equilibrium: This is another term not included in the glossary. Curiously enough, it is not found in the text either--the only related term there is "equilibration," referring to "the balance between assimilation and accommodation." (p. 435)

adaptation: This is another term not included in the glossary. We find it in the text in the following context:

> "Adaptation cannot take place unless there is a scheme. Successful adaptation will give the individual a meaningful understanding of the surrounding environment. It depends on the mental processes Piaget labels as assimilation and accommodation." (p. 435)

It should be easy to see that using the book would not be a good way to prepare for the test. In only one instance (the term "organization") does the test definition match the definition given in the book. However, to say that the students "don't need to read the book" in the Child Care I course would be to accept a rather insidious assumption: the assumption that the only purpose the students have in taking the course is get a good grade. Doubtless good grades are a goal of all students, a bottom line--we met no one who wanted bad grades, and only very rarely students who claimed to be indifferent to their grades. Certainly, all of the students in the Child Care I classes copied the blackboard writing religiously and used it to study for their test. Still, while there are, no doubt, students whose only goal in a course is to escape with a good grade, it seems that in most cases students want much more. Perhaps we should qualify this and say that students in specific-function courses are much more likely to want more than grades from those courses (we should, therefore, expect that grades would become much more important goals for students in general-function courses).

Grading and Student Motivations

The problem arises from a very basic characteristic of schools: schools are designed not only to transmit knowledge to their students, to train or enlighten them, but also to broadcast formal summary statements (e.g., grades) which supposedly represent the knowledge that students have acquired--it is these formal summary statements which are socially valued. In other words, grades are sine qua non for the students. All the knowledge in the world will not do the student much good if he or she does not have a good grade or some other sort of credential from the organizations which are socially delegated the responsibility for transmitting that knowledge. On the other hand, grades and other credentials are of considerable value even if their possessors lack the knowledge they are supposed to represent. Whatever else they do in a course, students must try to get good grades, unless their interests in taking the course are purely recreational (which is rarely the case). This situation is one of the reasons why I specify in the definition of "literacy demands" that they refer to problems the students must solve in order to get good grades--this is taken to be the minimum that they must do if their taking the course is to have any useful outcome for them.

However, it is one thing to say that, considered objectively, from the outside, credentials carry more social and economic weight than the knowledge they supposedly represent--it is something quite different and far less defensible to try to use this fact to infer that students' sole concern with a course is to get the credential (a good grade). On the contrary, our interviews with Child Care majors, and our observations of them in child care classes, suggest that the vast majority are deeply committed to the vocation of care-giving (which does not preclude an awareness on their part that the credentials have some monetary value for them). In all of the child care courses, the students' questioning and discussion was almost completely devoted to an effort to link the course content to practical activity: taking care of children. (The absolute volume of questions is, of course, much lower in Child Care I than in the other courses where the subject matter itself is more closely geared to practical concerns.)

At the same time, there is no reason to assume that the instructors of the Child Care I course structure their course around the test for the sheer pedanticism of it. We have already seen that organizational factors influence their conception of the purpose of the course (and that this has consequences for the selection of the textbook). We may not conjecture (admittedly interpreting the facts rather than simply describing them) that the heavy emphasis placed on the test in this course is a product of (1) the organizational position of the instructors and (2) the nature of the curriculum and the textbook itself.

Organizationally, the part-time instructors teaching Child Care I are in the position of having to evaluate students who are in most cases known to, and often concurrently enrolled in the classes of, the full-time instructors (one of whom is also the department head, ultimately responsible for hiring part-time instructors). Thus the part-time instructors are in the potentially precarious position of having to evaluate students who are being, will be, or have been evaluated by the full-time instructors. In other words, there is a possibility of discrepant evaluations, and the instructors in an organizationally subordinate position are constrained to base their evaluations on "objective," non-disputably legitimate criteria: objective tests based on the textbooks.

The subject matter of the course, and the textbook, also contribute to the focus on teaching for the test. Note first that the subject matter is defined by the text. As Olson (1980) has argued, the language of textbooks presents content as if it were given from "tradition"--not open to argument or qualification. Second, being presented as an objective collection of facts established by "science," the content of the text is geared to the norms of academic discourse rather than to any practical or experiential situations.

Third, this academic discourse is not easily translatable into common sense, everyday language. There are indeed quite reasonable arguments for concentrating on definitions of terms, since the subject matter is embedded in concepts and terms (in the text), and the instructors can go only so far in simplifying the language. Finally, there is an overriding constraint in the amount of time available to present the lesson To attempt to present even a relatively small portion of Piaget's thought in two one-hour class sessions to students with little if any training in biology or psychology is arguably a waste of time.

What more could you expect to do than make the students aware of the existence of Piaget's work and acquaint them with a few simplified pieces of his thought?

It should be noted here that the instructor's blackboard version of Piaget is not merely a "translation" or "simplification" of Piaget as found in the textbook. The use of the study sheets, blackboard talk, and the test all function to reify the concepts and terms they touch upon. Concepts are isolated their relation to other concepts and their place in any general theoretical orientation are obscured. In some cases, for example, that of the term "equilibrium," this reification has progressed to the point that the term--and its definition as given on the test ("a state of balance")--really seems to bear no relation at all to the appropriate Piagetian concept ("equilibration"--which can only be defined in terms of the relationship between assimilation and accommodation).

These considerations on the relationship between textbook and test demonstrate that while one may not need to read the book in order to do well on the test (and get a valuable credential--a good grade), it is very likely that the only way one can acquire the knowledge supposedly transmitted in the lesson (and supposedly tested by the test) is to read the book.*

Instructional Style and Students' Responses to the Text

The lesson on cognitive development came in the middle of the semester, after the students has settled into a pattern of dealing with the demands of the class. Thus, when the instructor began the first class session of the lesson by asking the students if they had read the assignment made in the previous class session, only two of the 25 students present claimed to have read the 58 pages assigned (they had a stretch of time from a Thursday to the following Tuesday in which to do the reading). Indeed, so few students performed the assigned readings in this book that we were unable to find any students who had read them to interview (although a number of the students we interviewed read their assignments in other books from other child care courses). There seem to be several reasons why the students did not read the text: (1) They perceived it as a very difficult text, laced with numerous technical, difficult terms; (2) Not all of the reading assigned was relevant to the test; (3) The instructor covered almost all of the relevant points in lecture. In the course of the lecture the instructor would also give the students specific page references (usually a very small fraction of the originally assigned reading) for important points in the text. As one student described the process:

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*The other test questions do nothing to alter the basic analysis above: 12 points go for putting the "six stages of sensorimotor development" into correct order. (The terms, in order, were included on a study sheet to the class--a sheet which the instructor went over verbally--she also covered it in lecture and board writing. One point went for identifying "the root of intelligent behavior" according to Piaget. This was on the study sheet, and the instructor also went over it explicitly in class. Two points went for defining "object concept"--this was demonstrated in a film shown in the first part of the class session in which the test was administered--the instructor prefaced the film by cautioning the students to pay special attention to what the film had to say about the "object concept." Finally, one point went for "listing" one "educational implication" of Piaget's theory--this was on the study sheet, and the instructor had spent a brief time at the end of one class session talking about this (even here, the "implications" she offered were not stated in very practical terms--for example, the "implication" that "the concrete" should be introudced before "the abstract" in lessons, etc.

> She puts things on the board that we must write down in our notes. She gives us specific pages to read in the textbook...then from the specific page that she gives us, the specific chapter, then we go to the specified text and come up with what she wants us to come up with...They generally give us a basic idea on what they going to ask us (one the text). So that in itself helps to prepare us about how to go about answering the questions. But a lot of the answers that I have given had been mostly memorized of what they has taught me from the board and from lectures. I have had a little time to read the book because I am pretty busy.

A question of causality arises: Do the instructors lecture on the book because they perceive that students have difficulties reading it, or do the students simply neglect to read the book since the information is going to be presented in lecture anyway? We cannot say whether the students would or could read this textbook if they had no lectures and blackboard talk to rely on, but our observations of the students' use of other textbooks and their reactions to other teaching styles suggest that they would, in most cases, rather read the book themselves than have their instructors read it aloud or lecture out of it. For example, students would often compare EXPLORING CHILD BEHAVIOR with other books they had used in child development, saying that they had read the other books because they were more interesting. "Interest" here could mean either that the other books were easier (they were certainly shorter and less technical) or that they were more interesting in the sense that they dealt more with practical or real life concerns. One student compared EXPLORING CHILD BEHAVIOR with another text which had covered some of the same topics (specifically, the biology of the fetus). The other book had been more interesting, the student felt, because it "told about drugs you shouldn't take while you're carrying a baby." In other words, the other book gave a more practical turn to the discussion. Other students expressed some disappointment that EXPLORING CHILD BEHAVIOR was not more closely connected with child care practice. One student had been recommended to the course by her employer at a child care center--a former student in the Child Care Program who had taken the course when the previous textbook (the one "full of holes") had been in use. The student told us that both she and her employer had been disappointed with the approach of the course, that it was completely different from what it had been when the employer took it, and that now it "looks more like a biology course." Another student told us that many of the topics being considered in the Child Care I course were also covered (and covered better, was the impression we got from her) in a Psychology course she had taken at the college (and which is required for Child Care majors).

We also have some evidence that students generally do not like it when instructors read or lecture from books which they consider easy or interesting. Many students, both in Child Care and other programs, said they were bored with instructors who read the lesson out of the book. In one section of the Child Care I course the instructor used, in addition to EXPLORING CHILD BEHAVIOR, a second book which the students found easier and more "interesting." When the instructor read or lectured or did blackboard writing out of this book, the students did not take notes or copy the blackboard writing (as they did when EXPLORING CHILD BEHAVIOR was being used). Instead they simply figured out where the instructor was in the book, underlined passages or made notes in the margins, and then studied from the book. In other words, they used the instructor's lectures as advance organizers or access structures for their reading, rather than as substitutes for reading the book.

To return to the questions posed earlier about the relationship between the instructors' instructional methods and students' reading habits: we feel that it is not fair to say that students simply take the route of least effort in acquiring the knowledge they need to pass the course--some undoubtedly do, but many, probably a large majority, take themselves, their school careers, and their future occupations very seriously indeed and take pride in acquiring knowledge about it. The only hesitation we see, at least in the Child Care program, is in those situations in which the students are unable to link course matter to their practical concerns as workers in future occupations or fields. When this lack of relevance is combined with a very "difficult" (unfamiliar) text or course content, then we may see large numbers of students "satisficing"--taking the path of least effort to get through the course.

Summary

We should like to make it clear that it has never been our intention to evaluate the Child Care I course--for one thing, such a task is simply beyond our competence--nor should the discussion above be construed as an evaluation. Rather, our concern has been to describe the interaction of purposes and motivations (both instructors' and students') in an organizational context, to describe how this interaction influences the selection and presentation of written language by the instructors, to describe the strategies students employ in dealing with the texts and the communicative and performative problems set for them in the classroom.

What we believe we have found is that the organization of instruction in the program put strains on the instructors from different directions. On the one hand, hiring and supervising practices (the organization of departmental control) create a situation where the instructors interpret the purpose of the course as being to teach "reified," theoretical knowledge--the sort of the systematic set of concepts and principles embodied in textbooks. On the other hand, constraints on time, the complexities of "translating" the textbook, and the need for a system of evaluation that will appear "legitimate," work toward the result that the instructors feel obliged to structure the course around a very simplified, pedantic presentation (mostly blackboard-talk) and simple "objective" tests.

The result of this situation is that the students' most "rational" choice is to ignore, or give relatively less attention to, the knowledge in the textbook, and to worry more about performing the appropriate behaviors that will get them a good grade ("rational," because the students have a limited amount of time to allocate to the course, the knowledge is not obviously relevant to the practice of their vocation, and there *is* a necessity for getting a good grade). We can say that the communicative and performative problems that the students must solve to get good grades in the course do not entail the acquisition of the systematic knowledge embedded in the textbook--and that, in fact, the knowledge needed to solve those problems bears little resemblance to the knowledge in the textbook. Of course, the students do have the option to read the textbook themselves--but time constraints, the foreignness of the subject matter, and the fact that the knowledge presented in the class is presented as being the *same* knowledge as is in the textbook--make it unlikely that they should do so (and indeed, few do). Thus we come to the unexpected conclusion that the successful negotiation of the literacy demands of the course results in the students *not* learning the knowledge which the course is intended to transmit.*

Several points remain to be made. First, we are not condemning the way the course is taught. The course *does* succeed in making the students aware of Piaget's work, and one could argue that even the greatly oversimplified presentation of his ideas does succeed in "sensitizing" the students to the existence of developmental sequences in the growth of the child (and that, insofar as this is accomplished, the course does in part fulfill its purposes as envisioned by the full-time instructors).

A second point to be made is that, for all the ins and outs of what gets taught and how, the relationship of the course to the actual performance of child care-giving is problematic--and indeed, some of the instructors think there needn't be any close connection. This would leave the course open to the frequently made complaint that "...the reading skills needed to *do* a job may differ from those needed to *learn* a job in a career education program" (Sticht, 1975:164). Sticht goes on to argue that action should be taken "...to remove unrealistic requirements and accurately match student's skills to career education demands"

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*This might suggest to the reader that we should revise our definition of "literacy demand" to "the performative and communicative problems the students must solve in order to acquire the knowledge the course should transmit." However, a little reflection should make it clear that this would entail us writing curriculum for each and every course. It is easy enough to point out inconsistencies in the curriculum, and to observe that what gets talked about in class and tested for is not closely related to what is written in the text--it is something altogether different to say what should be taught, and what would represent an adequate understanding of the text. We don't claim to know.

(1975:165). Such a criticism seems unfounded in the present case. In the first place, literacy demands on the job, as envisioned by Sticht, do not exist in child care-giving. There is no way to point out a corpus of texts and say that they contain the information necessary to be a correct child care-giver. Child care is not a matter of dealing with material or technical problems--as Sticht's examples tend to be--but of dealing with people (children); and to say that. in the present state of the child care profession, one can be considered an adequate child care-giver without knowing anything about Piaget, might suggest that the profession should be altered, instead of the educational program that tries to teach Piaget to prospective child care-givers.

This brings us to a final and crucial point. Many times in this section we have spoken of the "relevance" of a text as being an important factor in the student's use of the text. It may seem possible to draw from this an unwarranted conservative conclusion: that the object of a vocational education program should be to determine as precisely as possible the knowledge required for on-the-job performance and to teach that knowledge to the students in the program. Now, there is some obvious validity to this position--no one would suggest that a training program should not teach the knowledge needed to do a job. At the same time, however, it is important to remember that the nature of a vocation should not be treated as a rigid, immutable given. The relevance of knowledge to a vocation is not just received; it is also created. To say that the students in Child Care I do not see the relevance of all the subject matter (or even to concede that some of the subject matter is not directly relevant to child care work as it is now constituted) is not to say that this knowledge is not important, or that it should not be taught. Rather, to interject opinion here, it seems to us a useful and praiseworthy thing to do. It seems to be an attempt by the Child Care faculty to change the state of the Child Care-giving vocation (to create relevance for the knowledge), and there is no reason to believe that such a change would not be beneficial. Thus, to say that the students are acting "rationally" to avoid the text and "satisfice" in the course is not to say that we feel they are doing the right thing--it merely says that such behavior is understandable from their point of view.

REFERENCES

Bellack, A. A., Kliebard, H., Hyman, R. and Smith, F. THE LANGUAGE OF THE CLASSROOM. New York: Teachers College Press, 1966.

Goody, Jack. THE DOMESTICATION OF THE SAVAGE MIND. London: Cambridge U. P., 1977.

Harrison, Colin. "Assessing the Readability of School Texts," pp. 72-107, in THE EFFECTIVE USE OF READING, edited by R. Lunzer and K. Gardner. London: Heinemann Educational Books, 1979.

Helms, Donald B. and Turner, Jeffrey S. EXPLORING CHILD BEHAVIOR. Philadelphia: W. B. Saunders Co., 1976.

Hymes, Dell. FOUNDATIONS IN SOCIOLINGUISTICS: AN ETHNOGRAPHIC APPROACH. Phildelphia: U. of Pennsylvania Press, 1974.

Johnson, Mary Canice. DISCUSSION DYNAMICS. Rowley, Mass.: Newbury House Publishers, 1979.

Keddie, Nell. "Classroom Knowledge," in KNOWLEDGE AND CONTROL, edited by M. F. D. Young. London: MacMillans, 1971.

Klare, George. "A Second Look at the Validity of Readability Formulas," paper presented at annual meeting of National Reading Conference. St. Petersburg, Florida, Dec., 1975.

Kleiman, Glenn M. and Shallert, Diane L. "Some Things the Reader Needs to Know that the Listener Doesn't," pp. 138-142, in READING: DISCIPLINED INQUIRY IN PROCESS AND PRACTICEM, edited by P. D. Pearson and Jane Hanson Clemson, S. C.: The National Reading Conferences, 1978.

Macdonald-Ross, Michael. "Language in Texts," in REVIEW OF RESEARCH IN EDUCATION 6, edited by Lee S. Shulman. Itasca, Il.: Peacock Publishers, 1979, 229-275.

Mehan, H. LEARNING LESSONS. New York: Academic Press, 1979.

Murphy, D. R. "How Plain Talk Increases Readership 45 Percent to 66 Per cent," Printer's Ink, 1947, 220:35-37.

Murphy, D. R. "Tests Prove Short Words and Sentences Get Best Readership," Printer's Ink, 1947, 218:61-64.

Olson, David. "Some Social Aspects of Meaning in Oral and Written Language," in THE SOCIAL FOUNDATIONS OF LANGUAGE AND THOUGHT, edited by David R. Olson. New York: W. W. Norton & Co., 1980.

Sankoff, Gillian. "A Quantitative Paradigm for the Study of Communicative Competence," in EXPLORATIONS IN THE ETHNOGRAPHY OF SPEAKING, edited by R. Bauman and J. Sherzer, Cambridge University Press, 1974, 18-49.

Sinclair, J. McH. and Coulthard, M. TOWARDS AN ANLYSIS OF DISCOURSE: THE ENGLISH USED BY TEACHERS AND PUPILS. London: Oxford University, 1975.

Sticht, Thomas (Ed.) READING FOR WORKING. Alexandria, Virginia: HumRRO, 1975.

Stokes, A. "The Reliability of Readability Formulae," Journal of Research in Reading, 1978, 1:21-34.

Stubbs, Michael. LANGUAGE AND LITERACY: THE SOCIOLINGUISTICS OF READING AND WRITING. London: Routledge & Kegan Paul, 1980.

Swanson, C. E. "Readability and Readership: A Controlled Experiment," Journalism Quarterly, 1948, 25:339-343.

Walker, R. and Adelman C. "Strawberries," pp. 133-150, in EXPLORATIONS IN CLASSROOM OBSERVATION, edited by M. Stubbs and S. Delamont. Chichester: John Wiley & Sons, 1976.

Waples, D. and others. WHAT READING DOES TO PEOPLE. Chicago: U. of Chicago Press, 1940.

CHAPTER IX
THE ACCOUNTING PROGRAM

Sources of Data

All courses offered in the accounting program were observed in this study. The period of this investigation was fall, 1980 and spring, 1981 semesters. Data collection included interviews with thirty-seven students, twelve instructors, and four administrators from the college (as well as four administrators from a nearby university). Observations were made of 120 classroom sessions and focused upon instructor presentations, student reactions and responses, and classroom atmosphere. Interviews with students primarily focused upon student study habits, use of free time, use of the Learning Resource Center and student lounges, use of instructor office hours, advising sessions and environmental situations impacting on their student experiences.

The Development of the Vocational Program

The history of the developmental program demonstrated how organizational decisions, the success or failure of fund proposals, changes in administrative personnel and the like, can produce a curricular collage. The following section raises some important issues about "vocational" education programs, while at the same time showing how "neutral" historical circumstances can create contemporary problems.

There are two funding agencies for higher education in the State of Texas: the Texas Education Agency and the Coordinating Board for Higher Education. Both agencies play important roles in curriculum planning, development, and coordination--the former with regard to "vocation" programs, the latter agency with "academic" programs. The distinguishing criteria between "vocational" and "academic" programs is, however, highly ambiguous. The major criterion used by the Texas Education Agency for approving a "vocational" program or course is that is should describe an employment objective. Regular Programs are defined as "a sequence of courses leading to employment, while Adult Programs are defined as "short-term courses, i.e., gift wrapping for short-term employment opportunities at Christmas or other peak times." (The sites involved in this research offered both types of courses, but in our discussion here we will be concerned only with "Regular Programs.") However, as one administrator pointed out:

> ...it's all to easy to consider accounting as not being academic here because it's funded by TEA. But it's as academic here as anywhere else. It's academic here and it's academic at the University; it's vocational here and it's vocational at the University, because the end objective is for the person to find employment in accounting. We need to be reminded that sometimes our definitions are drawn up for convenience.

This chapter was written by Rene A. Medina with technical assistance by Nora Comstock.

The problem is in part one of logic, as Monroe comments:

> ...a state office of vocational education must arbitrarily decide that certain courses qualify for reimbursement from state and federal funds and other courses do not. Is a course in accounting vocational or nonvocational? If accounting is given transfer credit it is not reimbursable, but if the course is given exclusively to occupational students it is reimbursable. Is a course in English literature vocational or not? Assuredly, for a potential English teacher such a course has monetary, vocational value (Monroe, 1973:81-82).

But the problems go deeper, because even though accounting courses at the community college may be considered "equivalent" to accounting courses at a major university and therefore transferable to that university for credit, the accounting programs at the community college are (at least in the case in question) labeled "vocational", while those at the university are not. While there may or may not be some difference in content between the accounting courses at the community college and the university, the circumstances of the funding do produce a dichotomy of, on the one hand, courses that have parallels at four-year colleges (e.g., accounting), and vocational courses which do not have such parallels (e.g., welding).

It is primarily for these reasons that this chapter is presented although other research issues are addressed in the text. This chapter is not intended as an analytical description of the accounting program; rather, it is intended to provide a general descriptive study of this important program in the community college. The discussion follows this format: (1) the students, (2) program organization, (3) organization of instruction, (4) patterns in students' academic careers, (5) academic advising, (6) Principles of Accounting I and II, (7) literacy tasks and (8) environmental issues.

The Students

According to the community college's statistics, the breakdown of students declaring accounting as their major shows a predominantly female (63%) composition. This is in contradiction to a previous view of accounting as a male profession. One instructor, who completed his accounting degree in the late 1940s, related that there was only one female in the entire accounting program at the university he attended. Furthermore, the current trend by women who want a degree is reflected in their decisions to seek a profession and it seems to be reflected at the college. In the surveyed classes, the female accounting majors had only a slight edge over the males (52% vs. 48%). However, when all majors are included, the breakdown in the observed classes is decidedly male dominated (57% vs. 43%).

The ethnicity of the school's students, who major in accounting, follows the same pattern as the county's population mix (Table 1). Anglos are the majority group, followed by Hispanics and Blacks. Both of the minority groups are underrepresented when compared to the county population. In the accounting program, they represent two to four

TABLE 1

Observed Courses and County Population By Ethnicity
(percent)

	Accounting Majors Fall 1980	County Population 1976	Observed Courses* n=134	(n=114)
Anglo	76.7	73.7**	72.4	(67.5)
Black	8.2	10.7	12.0	(9.7)
Hispanic	11.2	15.6	13.4	(17.5)
Other	3.9	----	2.2	(5.3)

* Percentages in parentheses represent the advanced accounting courses while the figure is for the Principles of Accounting I & II classes.

** The percentage for the county Anglo percentage includes the Other category

(The percentage breakdowns for accounting majors and the county population are from reports provided by the college.)

percentage points less than their representative population. However, in the observed courses they fared better. In the Principles I & II courses, Blacks are represented at a higher percentage while Hispanics are underrepresented. In the advanced courses the situation is reversed with a four percentage points difference for Hispanics. The differences between the school's figures and the observed courses figures may be due to sampling error and the fact that these courses were surveyed over two semesters.

Wide variations in age were found among the observed students. The ages ranged from seventeen to sixty. When considering the principles classes, the mean age, between accounting students and all students (including accounting majors), varied by one year. Accounting majors averaged 22.2 years while the average age for all students was 23.2. The one year differences may be explained by examining the intentions of the students. As mentioned previously, less than twenty percent of the principles students were accounting majors. The rest of the students were Business Administration majors and other vocational program majors. The students whose intentions were to transfer were younger while the vocational program majors were older. Accordingly, when only students from the advanced accounting courses are considered, the average age rises to 31.2 years. A nine year difference exists and seemingly indicates that individuals who decide to attend the community college and seek a terminal two-year degree or skill improvement are making that decision later in their lives. However, sampling errors may be present in the selection process but it is unlikely to significantly narrow the age difference or cause a reconsideration of this prospect. Essentially, the average age for students seeking the associate of arts degree in accounting will be higher than those who intend to transfer.

TABLE 2

Accounting Majors in Principles Courses by Occupational Requirements and Ethnicity

	Anglo	Black	Hispanic	Other
Accounting Work Full-time	3	0	1	0
Accounting Work Part-time	1	0	1	0
Other Work or Undeterminable	7	0	1	0
Not Employed	5	1	1	0
Total	16	1	4	0

The decision to major in accounting is discussed below. Furthermore, it mentions that work experience influenced decisions to major in accounting. If we consider the occupations of the accounting majors in the principles classes, we find that six of twenty-two individuals are already working in accounting related work. The rest are employed part-time or listed their occupation in such a manner that it was impossible to determine if they performed accounting work as part of their employment duties. Furthermore, seven individuals were not employed. Since it was impossible to interview all individuals, the surveys were the source of the information and we can only extrapolate that their decisions may have been influenced by their present occupation.

Our surveys, also, did not elicit information on their final educational goal. Consequently, we were unable to determine the percentage of students majoring in accounting who intend to transfer. It would provide a comparison on the influence of occupations on their choice of major. Of those six individuals who had accounting related occupations, five were employed full time. The other was employed at 3/4s time and intended to transfer. However, when accounting majors in the advanced classes are considered, it reveals a strong possibility on the influence of occupation. The percentage of students working in accounting related occupations is seventy-five percent (75%). They work full-time and attend school on a part-time basis. Furthermore, some of the individuals who did not declare accounting as a major on the survey listed occupations that required accounting knowledge (their positions were classified as auditors, accountants, etc.).

When ethnicity is distinguished, the differences in the principles classes seem inconclusive because of the low number of students majoring in accounting. If an analysis of variance were to be performed on the twenty-one accounting majors (Table 2), there would be an insufficient number of cases in the Hispanic and Black cells. This data shows that a minority of these students are working in full-time accounting related

TABLE 3

Accounting Majors in Advanced Accounting Courses by Occupational Requirements and Ethnicity

	Anglo	Black	Hispanic	Total
Accounting Work Full-time	26 (65.0%)	3 (60.0%)	6 (55.0%)	35 (62.5%)
Accounting Work Part-time	2 (5.0%)	0 (0.0%)	1 (9.0%)	3 (5.4%)
Other Work or Undeterminable	7 (17.5%)	1 (20.0%)	3 (27.5%)	11 (19.6%)
Not Employed	5 (12.5%)	1 (20.0%)	(9.0%)	7 (12.5%)
Total	40 (100.0%)	5 (100.0%)	11 (100.0%)	56 (100.0%)
Percent by Ethnicity	(71.4%)	(9.0%)	(19.6%)	(100.0%)

occupations. Also, two of four hispanics work in accounting requiring jobs. However, one Black student is hardly a representative number on which to draw a conclusion. A similar breakdown in the advanced courses presents a different perspective. The number of accounting majors in these classes was 56 out of 114 students. Of the accounting majors, 62.5% were employed in full-time accounting occupations (Table 3). Another 5.4% performed accounting work on a part-time basis. Within each ethnic group, it was 65%, 60% and 55%, respectively, for Anglo, Black and Hispanic students. In the Other Work or Undeterminable category, three Anglos and one Hispanic were employed only part-time.

Reaching a conclusion on the data in its present condition is complex. We are positing that employment has an effect on an individual's choice of major but an additional factor must be considered when evaluating the results on the table. Twenty-two students already have baccalaureate degrees. Twelve possess either a B.B.A., M.P.A. or M.B.A.; one student is already a certified public accountant (CPA). Of the others, seven have a B.A. or B.S.; two received a B.F.A. (Bachelor of Fine Arts); and one has a Master of Arts. Five of the twenty-two were not employed in accounting positions. Four Hispanics and one Black had their degrees but one Hispanic was not employed in accounting work. It is impossible to determine whether the occupation influenced the decisions of the twelve with the business degrees to major in accounting. They may only have been acquiring additional credit for the purpose of studying for the CPA or picking up an additional skill to work as auditors for their employers. Furthermore, they are coming back to school rather than attempting their first effort. Consequently, they are eliminated from the analysis. The others obtained degrees in art,

TABLE 4

Accounting Majors in Advanced Accounting Courses by Occupational Requirements and Ethnicity (Individuals Seeking First Degree)

	Anglo	Black	Hispanic	Total
Accounting Work Full-time	11 (47.9%)	2 (50.0%)	3 (42.8%)	16 (47.1%)
Accounting Work Part-time	2 (8.7%)	0 (0.0%)	1 (14.3%)	3 (8.8%)
Other Work or Undeterminable	5 (21.7%)	1 (25.0%)	2 (28.6%)	8 (23.5%)
Not Employed	5 (21.7%)	1 (25.0%)	1 (14.3%)	7 (20.6%)
Total	23 (100.0%)	4 (100.0%)	7 (100.0%)	34 (100.0%)
Percent by Ethnicity	(67.6%)	(11.8%)	(20.7%)	(100.0%)

education, history and other liberal arts. Because of the poor labor market for their previous training, they are obtaining certification in accounting. Furthermore, they are employed in accounting occupations and are developing their skills. For the purpose brevity, only first time college attenders are considered.

When the individuals with baccalaureate degrees are eliminated, the percentage of individuals already employed in accounting work decreases from 62.5% to 47.1%. Furthermore, when the part-time employed students are included, the figure is approximately 56% as compared to 68%. Previously, we reported that interviewed individuals pinpointed their occupation as influencing their choice of accounting as a major. The above data provides more support that it occurs in a majority of cases. Furthermore, individuals in the Other Work or Undeterminable category may be performing some kind of accounting work although it is not their main duty. This is unconfirmed as we were unable to interview every student; we were dependent on the students to list their occupation on the survey form. Furthermore, it should be kept in mind that there are low numbers of minority students in the above table. The addition of one individual to either the Black or Hispanic column may cause a significant change in the results.

The previous discussion has concerned itself with the employment of individuals in accounting occupations and its effect on a choice of major. However, when the principles classes are considered, it becomes a minor issue: it is assumed that a greater number of these students are transfering because of the overwhelming number of principles courses taught in relation to other lower level and advanced courses. Furthermore, there are a relatively large number of offered course sections with a more diverse student population (by major). In the fall, 1980 semester, 82 sections of various accounting courses were offered. Of these, 58 (71%) were principles courses: 12 (14%) were lower level courses, 3 (4%) were business statistics sections (it is listed with an advanced course number designation); and 9 (11%) advanced courses were taught. The evidence is only suggestive since even in the surveyed classes we could not distinguish which accounting majors were transfering.

Students who continue in the accounting program towards an A.A.S. are more likely to be employed in work which already requires accounting duties. That could possibly indicate that students are moving from within their employment into those positions. Furthermore, twenty percent of the students were not employed in any position. What kind of market for their skills will these students face when they seek employment? What differences exist in the market for transfer students (four year degree graduates) and terminal students (two year degree graduates)? In the following section, these questions are discussed in terms of career expections.

Employment Outlook

Career expectations may have differential results dependent on their educational goals. The goals are divided into three groups. First, individuals intend to complete the basic courses at the community college before transfering to the university. Next, students seek the A.A.S. and enter the market. A variation of this is working after graduation before deciding to pursue a four-year degree. Last, students are attending only to complete some accounting work for mobility within their present job or for further skill improvement in accounting. This may include applying for the degree.

The transfer students face an excellent job market according to the Occupational Outlook Handbook, 1980-1981 Edition. It predicts that the accounting field employment outlook is experiencing faster growth than other occupations. If it continues for two more years, the students will have excellent employment opportunities. Furthermore, starting salaries are competitive. The College Placement Council CPC Salary Survey (March, 1981) lists the median starting salary at $1,417 per month with a range of $1,266 to $1,550.

The literature suggests that these graduates are almost assured of employment when they receive the baccalaureate degree. The same sources, however, did not mention what the individual with an A.A.S. in accounting could expect. This information was not available through other sources. The placement office at the college reported that companies do not actively solicite accounting graduates and they could not provide information on the local market and salary potential. A study on community college accounting graduates (Horowitz, 1974) concluded that, other than bookkeeping or clerical positions, few opportunities existed. However, a later study (King and Morgan, 1978) suggests the community college accounting graduates obtained employment where accounting duties were required. Furthermore, the A.A.S. degree was necessary for employment. But the Horowitz study and the placement office's reply suggested a bleak market.

Large, local employers were contacted about the opportunities for community college accounting graduates. The entry level salaries started between $11,000 and $12,000 a year. In contrast, entry level salaries for four year accounting graduates ranged from $16,000 to $17,000 a year. The A.A.S. degree qualified graduates for job entry at an accounting technician classification. Generally, employers listed only a few steps for advancement before these individuals reach the highest position available which is chief accountant. In terms of advancement, a main difference between two and four year graduates is that the latter may eventually move into management positions. If the former wants to advance, they need to complete a four year degree; but it wouldn't necessarily need to be in accounting.

Although employers had classified entry level positions, they cautioned that it was frequently impossible to secure it. First, individuals at the technician's level stay for a longer period of time. Some cited individuals who had been with them for over twenty-five years. Second, other employees have a first option to apply for these positions before it is opened to the general public. Furthermore, they advised that it is in the students' interest to complete their four-year degrees because of a lack of opportunities. Consequently, individuals, who are completing the A.A.S. and who will seek employment in accounting for the first time, face a difficult task to obtain a position in the employment market.

The last group of students is characterized by their present full-time employment; more than half already perform accounting work. They are more representative of how A.A.S. graduates obtain employment, i.e., they already have the employment while attending school. Furthermore, individuals who have their baccalaureate degree, but not in a business or accounting area, are returning to school to acquire additional certification; also, these individuals are already employed in accounting work. However, this study does not indicate if students were already employed in those positions before graduation. The last group of students forms a majority in the advanced courses and they have previously obtained their employment. Interviewed students reported that they had the job before they decided to attend school. But this does not rule out that a student may become marketable after finishing a few accounting courses. The students may find a position not involving accounting but they may have a first option on one when it becomes open. Accordingly, obtainment of employment should become an activity while attending school for individuals not performing accounting tasks or who are not employed.

Program Organization

The Business Division makes specific programmatic provisions for two types of students seeking to major in accounting: transfer (Business Administration degree plan) and vocational (Accounting degree plan). This distinction is important for two reasons. First, the student goals are different. The vocational degree student has decided he wishes to enter the work force in accounting upon completion of his coursework (and possibly to take the CPA exam). He must be prepared by the school to do this; therefore, his courses are targeted to prepare him to deal with the world of work (specific function courses) and he is required to take a minimum of general function work. The opposite is true for the transfer student who has elected to continue his education toward completion of a four-year degree. Secondly, the course transfer policy of senior institutions is regulated by designation of freshman-sophomore level coursework. The transfer student must be concerned with the transferability of his coursework and the completion of general function courses which parallel a senior college's degree plan requirements of the first two years. In the following presentations the two curricula are described and the consequences of the separation analyzed.

Business Administration Degree Plan. Accounting majors, who choose to pursue the bachelor's degree, follow a Business Administration degree plan that once completed earns an Associate of Science (A.S.) degree. It provides for the basic core curriculum required at most four year institutions for business area majors, including accounting. It requires nine hours of English, six hours each of government, history, economics, and introductory accounting (Principles of Accounting I and II). Furthermore, the program requires six to eight hours of science, six hours of mathematics, and three hours of data processing. Nine hours of elective credit round off the program: three hours must be from a foreign language, speech, or technical composition; three hours are to be taken in literature, psychology, or sociology; and three credit hours of elective credit are subject to departmental approval.

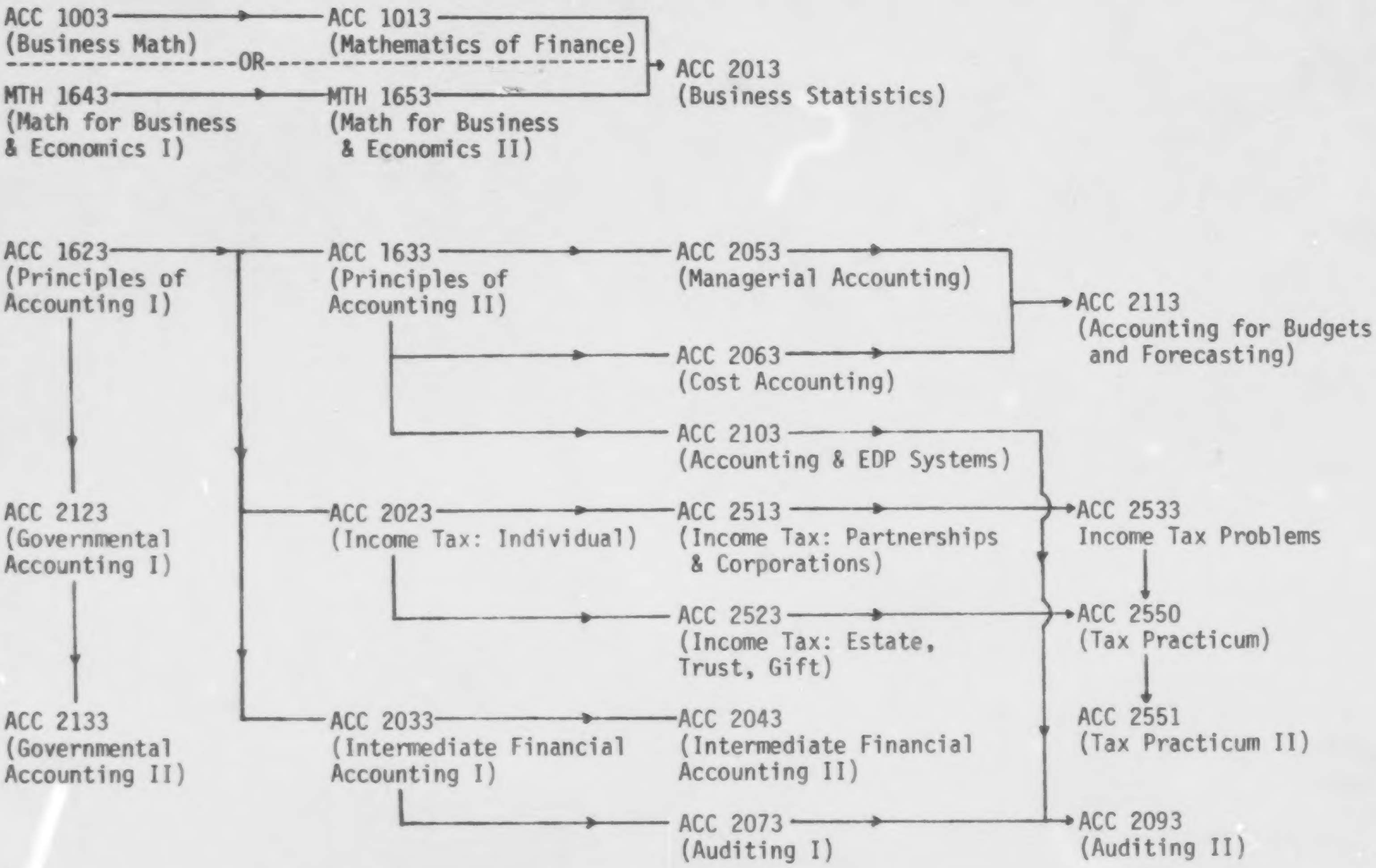
Accounting Degree Plan. The accounting program is organized into five sub-area specialization. Students may specialize in auditing, financial reporting, managerial accounting, governmental accounting, or taxation. The program serves four functions: (1) provides an Associate of Applied Science degree; (2) provides currently employed individuals with an updating of skills, knowledge, and/or new skills; (3) provides preparation for the Certified Public Accountants (CPA) examination for those who wish to go this route; and (4) provides accounting skill/knowledge preparation for students in other programs. Furthermore, students may take the basic courses required in the first two years for transfer to a senior institution.

The accounting plans require sixty credit hours for the Associate of Applied Science (A.A.S.) degree: the individual subprograms list from 27 to 39 credit hours of accounting courses. The exact amount is determined by the students' choices of elective courses and/or the route taken to fulfill the prerequisites for Business Statistics (Table 5). Each plan allows the students six credit hours of elective where they may choose more accounting or other approved coursework. For Business Statistics, the prereqiuisites are met in all plans by taking either two accounting courses or two mathematics courses. Last, courses in other programs are required and these differ by subprogram specialization.

The following flowchart exhibits the patterns in which the accounting courses are taken. Structured paths determine the order due to prerequisite requirements. Principles of Accounting I is the basic course for the accounting courses (except for the Business Statistics series). Thereafter, each succeeding course is required for the next one. Accordingly, the various subprogram plans then determine the student's coursework if he is aspiring to an occupational degree. If

TABLE 5

Flowchart of Accounting Courses


ACC 1003 (Business Math)
ACC 1013 (Mathematics of Finance)
OR
MTH 1643 (Math for Business & Economics I)
MTH 1653 (Math for Business & Economics II)
ACC 2013 (Business Statistics)
ACC 1623 (Principles of Accounting I)
ACC 1633 (Principles of Accounting II)
ACC 2053 (Managerial Accounting)
ACC 2113 (Accounting for Budgets and Forecasting)
ACC 2063 (Cost Accounting)
ACC 2103 (Accounting & EDP Systems)
ACC 2123 (Governmental Accounting I)
ACC 2023 (Income Tax: Individual)
ACC 2513 (Income Tax: Partnerships & Corporations)
ACC 2533 Income Tax Problems
ACC 2523 (Income Tax: Estate, Trust, Gift)
ACC 2550 (Tax Practicum)
ACC 2551 (Tax Practicum II)
ACC 2133 (Governmental Accounting II)
ACC 2033 (Intermediate Financial Accounting I)
ACC 2043 (Intermediate Financial Accounting II)
ACC 2073 (Auditing I)
ACC 2093 (Auditing II)

he is taking courses for work related reasons and does not plan on acquiring a degree, the program structure will still require the student to follow the stated sequence if he has not previously met those requirements.

Consequence of the Separation of Curricula. A major concern associated with these two distinct approaches to curricula is the unanticipated change of plans for the student. A transfer student with a minimum of business (accounting, in this instance) courses, who finds himself needing to go to work and finds that his accounting background of Principles I and II will get him a clerks (or some low level) job in the accounting field, may wish that he had chosen the accounting degree plan. Or an occupational student who finds he wants to complete a four-year degree transfers to the senior college and finds that his advanced accounting courses do not transfer because they are classified as junior/senior level courses which must be taken in residence at the senior college. But some senior institutions have instituted "inverted"/"2+2"/ or technology degrees to make allowances for the first two years of occupational preparation at the community college. The students' courses are accepted for transfer, and the student enrolls in general-function courses at the senior college.

The program organization is designed to provide students with the options of transferring or obtaining a terminal degree. The students follow a different group of courses but both take the Principles of Accounting I and II courses. The instructors teach these courses for the general student, i.e., instructors noted that they would not adjust their method of presentation for a class of only transfer oriented, or terminal degree oriented, students (if such a class did exist).

Organization of Instruction

Instructors. The instructors, on any given semester, are composed of recently hired (first year) individuals, retained part-time teachers and full-time personnel. The chairpersons are responsible for preliminary screening of applicants seeking available teaching positions. Instructors are hired based upon a combination of education, teaching and occupational experience. Work experience with a bachelor's degree in accounting are sufficient credentials; however, a master's degree is desirable. If the applicants meet the preliminary requirements, they are evaluated by a committee of accounting instructors and others within the business division ; recommendations are made to the administration where the final decision is made, and state agency approval is sought since it must certify the qualifications of instructors.

Since decisions on course assignments must be made in advance, some sections are listed in the course schedule without an assigned instructor. The chairperson assigns course loads to the other instructors and fills these unassigned courses after an instructor (s) has been hired. Generally, instruction within the program is delegated between a small percentage of full-time instructors who teach approximately fifteen to twenty percent of all accounting sections offered (the number of sections is increasing with ninety-nine listed in the fall 1981 semester while the number of full-time instructors remains constant) and a greater number of part-time instructors who are responsible for the remainder (each teaching two sections).

The accounting program is marked by a high level of dependence on part-time faculty who teach an overwhelming majority of the course sections each semester. The situation has consequences which may affect teaching effectiveness. Most part-time instructors teach in the late afternoon and evening, after the full-time instructors have left. One part-time instructor said it created a sense of isolation. If he should need help with the explanation of material for a presentation, or in dealing with students, or with administrative responsibilities, he would be unable to obtain its immediate resolution. Furthermore, interactions with other instructors rarely occurs. In general, it leads to a sense of isolation as they operate almost autonomously; seemingly, they are not part of the institution. Also, most part-time instructors have full-time occupations which is a limiting factor in their preparation for classroom lecture and with time for interaction with students.

Furthermore, the employment situation of the instructors seemed to have some effect on the manner and time spent in lesson preparation. For full-time instructors, teaching at the community college is their primary occupation. They use their time to attend to educational duties which include lesson preparation. In contrast, part-time instructors are primarily employed elsewhere. They make lesson preparations around their employment work schedule. Furthermore, they are limited in the time they can devote to office hours or other duties of teaching. An exception may be the instructors who are also Ph.D. students at the university, but their studies may be a limiting factor.

Most instructors prepared for class by reviewing the textbook beforehand. They chose topics for classroom discussion, planned assignments (if they did not have them listed on the syllabus), and, if relevant, made note of articles applicable to the topic. Only one observed instructor planned out his entire series of lectures ahead of time. This person kept a notebook with detailed plans for lectures. Accordingly, he did not use the textbook for presentations; his notebook provided him with all the information he intended to use. Other instructors depended on the textbook for their preparation and lecture. However, they varied in how closely they followed the text and whether they used it directly during class.

On the other hand, the use of part-time instructors has an advantage when their occupational specializations are utilized in the upper-level courses. The observed accounting instructors came from different work backgrounds. Their occupations are characteristic of the accounting occupational spectrum. The areas represented were head auditors, governmental accountants, Wall Street business firms, CPAs, small business people, and tax auditors from the Internal Revenue Service Through their experience, they provided actual examples that exemplified usage of the presented material. The individual who was an auditor used his experience to emphasize points in lecture. The instructor who worked for the Internal Revenue Service complemented the taxation course with his experiences. They were able to add relevance to the course material.

Two facts seemed to be significant in how an instructor performed in the classroom: teaching experience and training in teaching methodology. The effect of teaching experience upon students is difficulty to assess. However, in general, students expressed more satisfaction with those individuals who had the greatest number of years teaching. Experience allows the instructors to improve their delivery styles by learning from their students (i.e., which tactics elicit more responses) and their own self-evaluations. Also, the observations showed that an instructor may make those improvements in a short period of time.

Training in instructional methods (teaching methodology) is one factor for consideration. One instructor who had thirty years' teaching experience taught for over twenty of these years as a military instructor. During his active duty, he attended several instructor training courses to aid him in teaching specific topic classes. He learned organization of presentations, how to accent important items and how to employ different strategies to stimulate student thought and participation. Students verified his teaching skills; student performance was higher and attrition and absenteeism were lower. The effect of training in instructional methods warrants further study.

The instructors are factors in the environmental context of the community college. They affect student performance to some extent although an attempt to predict how influential is not attempted. Their educational backgrounds and experiences, both occupational and teaching, influence their classroom presentations and approaches toward students. Furthermore, their present occupational status may be a limiting factor affecting their teaching and interactions with students. Finally, the students, as a group, have been influenced in their interactions with the instructors.

Instructor Availability to Students After Class. Generally, instructors set aside time for students. However, it is not always convenient for part-time instructors to make themselves available at times other than class meetings. As mentioned previously, most part-time instructors have other full-time occupations which limit their available time.

On the first class day, students are informed of the location of the instructors' office and periods of availability. This information is also listed in the syllabi handed out to classes. Occasionally, a part-time instructor may not be set on his hours and location and will provide the information at a later date. The full-time instructors have offices, but the part-time personnel must use whatever space is available; a room is provided on one campus for all part-time instructors, but it is not specifically assigned to individuals. Part-time accounting instructors preferred to meet with students in the lounge for its convenience and informality. Furthermore, part-time office hours were usually scheduled following the class period because of employment work schedules. Generally, they were available either before and/or after class. One instructor told his classes to call at any time. He gave them his work and home phone numbers.

Student use of instructors' office hours is symptomatic of a television commercial which portrays a certain brand's repairmen as the lonliest people in town. Instructors reported sitting in their offices without one student visitor. Only one instructor was always busy during his office hours. He frequently had a line of students waiting outside his office. During observations of his office hours, students came to talk about difficulties they had with assignments, they came to discuss returned assignments, and they came for personal counseling about their program or external problems. However, it was not possible to determine the reasons for this behavior with this particular instructor. We do know that he presented himself as approachable and emphasized his open door policy throughout the semester.

Textbooks. The textbooks for all accounting courses are selected by departmental committees composed of full-time and part-time instructors. Generally, textbook selection is conducted yearly on a rotating basis for the courses. For example, textbook selection may be conducted for three courses one year, for five courses the following year, and so on. Although instructors are limited to course planning based on the approved textbook, they may add supplementary materials for the individual courses. They are free to decide which topics to emphasize and to structure the instruction at their discretion.

The textbooks are considered for their structure of the material and their clarity. A clear definition of these criteria is not provided but is left to the committee members' judgements. The textbook previously picked for Principles of Accounting I and II is an example of what is chosen. It is Accounting Principles, 2nd edition, by Ronald J. Thacker. It is divided into twenty-four chapters which are covered over two semesters. Each chapter is divided into two or three learning units. The first page of a unit lists a specific objective for that section. It provides an approach to attaining the objective by listing three or four questions which may be used to meet it. The unit is highlighted by headlines indicating the major features of the unit. For example, in unit 33 the highlighted sections are "Issuing Bonds", "Retiring Bonds" and "Reporting Bond Sinking Funds." Furthermore, key terms, which are listed at the end of the unit with their definitions, are emphasized in a different color ink. A brief explanation is given for the first section, Issuing Bonds. Then a example is presented with the assumptions to be considered and a description of the necessary procedures. It follows with methods for calculating specific items which must be entered into the illustrated journals and how they are made. Another example follows illustrating a variation of the first example. Next, the following highlighted sections explain variations in journal entries to complete the process. Finally, an assignment section is at the end of the unit which is separated into three parts: questions, exercises and problems. This unit was titled "Bonds Payable-Accounting and Reporting" and it is followed by another unit on "Bonds Payable" which expands on the former unit, utilizes its information and is structured similarly. The entire book is organized in the same manner.

After a book has been adopted, occasionally it is not easily understood by the students and a new book is quickly considered. However The Principles book was acceptable and, except for some minor criticisms, faculty seemed satisfied with the book. Instructors indicated that the book provides a good balance of reading material and examples. Both instructors and students said the book is easily read. A readability analysis of the book placed it at a tenth grade reading level. Students understood the book but wanted more examples; in the examples they wanted more detailed explanations of how the work was performed and reasons for the placement of entries.

The supporting materials for the Thacker book were a consideration in its selection. The textbook and the accompanying work book (Accounting Principles-Working Papers, part I and part II, 2nd edition, by Gordon A. Hosch and Ronald J. Thacker) are part of a package used by the school. The package includes recommendations on pacing the course, daily topic coverage, examination schedules, transparency sets, a test bank, and other support materials.

The Syllabus. After an instructor has been assigned to teach a course (or courses), he may design his own syllabus. However, the different instructors produce syllabi that are very similar in content and organization. Several features were incorporated into the syllabi designs: the required textbook(s), the scheduled office hours, a phone number, an explanation of the final grade breakdown, the evaluative procedures (exams, major assignments, and homework) and the organization of the topic coverage and assignments for the semester.

Patterns in Students' Academic Careers

The organization of the program and of instruction set the context in which students make decisions affecting their academic careers. Students make decisions to choose a major and to choose which courses to take in a semester. The decision to attend college is discussed elsewhere (see Student Careers) while the latter decisions are presented in the following sections.

Decisions to Major in Accounting. Seemingly, students' decisions to major in accounting were not arrived at in some rational, concise manner. Rather, they were haphazard in their methods of selection. The ideal process would have students talk to counselors in high school and at the community college about available options, complete interest inventories, read about career options and, finally, match their skills and strengths with what would be the best possible choice. Furthermore, they would have a clearer idea of what to expect from the field in work, salary and future possibilities. Instead, they spoke very generally about the field ("working with numbers") and were vague about what their role would be in an employment position.

Most students were influenced in their selection of accounting by external variables: role models, work experience, and vocational training in high school. Furthermore, some students returned for skill upgradement and for preparation toward the Certified Public Accountant (CPA) examination (they already possessed a baccalaureate degree).

Students who had a family member, or a family acquaintance working in the accounting profession or other business related area were influenced by that individual in selecting accounting as a major. Essentially, that individual was a role model for the student. The effect of a role model is best explained by describing the experiences of one student. The student, with college educated parents, intends to transfer and arrived at the decision to major in accounting through the influence of a role model. A family member was employed in an accounting occupation; the student majored in accounting on the advice of the family member. The family member recommended the field as a good choice and added that it paid an above average salary; he said he would help the student obtain a position when degree was attained. But the student could not explain what he expected to do or identify a specific occupational goal within the profession except that he would make "good money" and do accounting work.

Another group of accounting students were first-generation college-educated. They classified themselves as lower to lower middle class in backgrounds with parents whose occupations were farmers, truck drivers and other blue collar occupations. Generally, they came to the decision to major in accounting because of previous work experience and, in several cases, because of bookkeeping course work in high school; most did not attend college immediately after high school. Their employment required simple bookkeeping as part of their duties or they acquired bookkeeping/accounting duties after being employed. Interest developed and they decided to enhance their knowledge by completing courses, completing an associate degree program, or eventually obtaining a baccalaureate degree at a four year institution. Some individuals had performed bookkeeping or accounting technician duties for more than twenty years. They tired of being paid less because they didn't have the college credit required and, at times, of performing the work of a superior charged with the duty but who did not know hot to do it and delegated it to them. An education in accounting could provide them with occupational mobility.

Furthermore, some students had already obtained a degree at a four-year institution and returned for further education. They may be divided into two distinct groups: (1) they possess a baccalaureate degree in a non-business field or (2) they possess a Bachelor of Business Administration (B.B.A.) in accounting or another business field. The first group is returning for accounting education. Some seek the Associate of Applied Science degree because of work requirements while others need only learn basic accounting. Most are already employed in accounting-related areas.

The other group of students with a B.B.A. in accounting or other business area seek additional college credit to supplement their present knowledge and/or to prepare for the CPA examination. They take only advanced accounting courses and are not considered by this researcher as typical community college students in the discussion of literacy development and, consequently, they will be treated solely as a factor or environmental influence in the analysis of literacy demands/development in the accounting program.

The decision- making process in major selection is varied and not related to information-gathering actions which would inform the students of their choice. Rather, external factors, especially role models and job experience, are major determinants in the selection of an accounting major. It appears that the role model factor tends to influence transfer-oriented students, and job experiences tends to influence terminal degree oriented students.

After students complete the decision making process in major selection, they must choose courses which fulfill program requirements and meet their educational goals. If the students intend to transfer, they must become aware of the Business Administration degree plan; if the students want an A.A.S., they should know about the five sub-program options. The primary method utilized for gathering this information is academic advising.

Academic Advising in the Accounting Program. Student decisions concerning a major are important because their educational goals dictate the courses to be taken. As mentioned previously, transfer-oriented students follow the Business Administration plan and terminal degree-oriented students follow one of five sub-program plans. For students majoring in accounting, the advisement process first determined the students plans and educational goals. Then, advisors questioned students on courses already taken followed by questions on preferred course selections for the upcoming semester. If the students were unsure, the advisors spent additional time suggesting which courses to choose.

Observations of the advising process showed that care was taken to warn students of transferability problems which might occur if they complete the vocational accounting program and then decide to transfer. For terminal degree-oriented students who decide to transfer before or after finishing a subprogram, a more complex situation exists. The larger number of accounting courses and other requirements mean that the student, most likely, will repeat several courses, while other non-accounting courses are unacceptable for degree plan credit. Although it occurrence was noted, it was not perceived as an extensive problem. However, advisors should continue to be aware of its existence and watch for students who may be contemplating it.

The possibility of transferability problems is reduced as advisors make efforts to control course selections. However, the catalog, seemingly, contains a minor error which should be noted. Six hours of mathematics and nine hours of electives are required in the Business Administration plan. The elective credit hours are chosen from the following: three hours must be from either a foreign language, speech or technical composition; three hours are to be taken in literature, psychology or sociology; and three credit hours of elective credit which are subject to departmental approval. Furthermore, it cautions students to check the catalog of the institution they plan to transfer when choosing courses in mathmatics and six hours of the electives. Otherwise, they might choose a unacceptable course for degree plan credit at that institution. However, a similar warning is missing for the science choices. At the college, a student may choose from anthropology, astronomy, biology, chemistry, geology, physical science and physics courses. However, at one senior institution, anthropology and physical science are not among the choices allowed in its degree plan. Therefore, the accounting transfer-oriented students should be warned that the caution also applies to the science electives.

The selection of transferable courses concerns all accounting students: transfer or terminal degree orientations. The completion of courses which are unacceptable or useful only for elective credit delays the students in completing a four-year program.

Advisement is a process to keep the students on line with their educational degree plans. However, they may circumvent the process by selecting courses prior to advisement and indicating, during the process, that they only want their advisement sheet approved and stamped. If they exhibit confidence about their selections, the advisor responds with approval. Essentially, these students receive "rubber stamp" approval but both transfer-oriented and terminal degree-oriented students did not seem to be aware of possible consequences. For example, a few students were fulfilling the requirements for the Associate of Applied Science degree in accounting but planned eventually to acquire a bachelor's degree. They were unaware of the manner in which upper-level accounting courses transfer only as elective credit to four-year institutions.

When students take the initiative to obtain information on their program and on the transferability of courses (if transferring), rubber stamping is more likely to occur. The students read the information available in the catalog and in other college literature and, if aware that some courses may not transfer, consult the lists from various colleges and universities of transferable courses. The lists indicate courses that are accepted for transfer credit; they stipulate the hours of creit or assign a specific program designation and course number (Principles of Accounting I becomes ACC 311 at one university). When students take these courses, they are unaware that they may have to repeat them at the senior college. Once the decisions on specific courses are made, the advisor is asked to approve the course selections. However, some students after having consulted all sources, still seek the advice of the advisor and eliminate, or minimize, these sort of problem.

Steps to reduce rubber stamping are advised. Besides eliminating the completion of unnecessary courses by students, it would prevent others from taking courses before they have completed the prerequisites. Students reported that they signed up for courses without being prepared to do the work. they avoided the prerequisites by seeking rubber stamp approval. An instructor reported that some individuals may take the course successfully but other individuals are not prepared to do the work, understand the material and pass the course.

Another problem must be addressed by the advising system. Students are returning to school after several years' absence. For example, they previously took an accounting course (Principles I) and take the succeeding course (Principles II). Also, they have not been employed in a position where they performed bookkeeping or accounting related work. First, they lost their proficiency in accounting in that time span. Secondly, some of the accounting procedures they learned may have become outdated and replaced by more current methods. It might be best that these students retake the courses because they might encounter difficulty in successfully completing the succeeding one.

The advising process takes place in the accounting program's offices. It normally occurs for an upcoming semester during a specified period in the current one although a student may seek advice at any time. The advising of students takes from one to thirty minutes and is dependent on the student and his specific situation. Generally, with a few questions about goals and courses, the instructor approves the students' course schedules and stamps their sheets. The following conversation is an example of the advisement process. The situation exemplifies a student who is unsure of a career choice. She is undecided about which courses to take and about a choice of major. She is interested in numbers (but not necessarily in business or accounting), she is presently enrolled and she decided to come to school after being out for ten years:

A: advisor S: student

A: What can I do for you?

S: I came to be advised. Don't know what to take. My first semester now; I haven't been in school for ten years (refers to high school).

A: Why did you come back after ten years?

S: I want something better out of life.

A: What are you interested in?

S: I have a great interest in numbers.

A: Are you in school now?

S: I'm taking math and business.

A: What kind of accounting are interested in?

S: I've seen in the catalog some different types of accounting.

A: Do you plan to go to a four-year college?

S: What does a four-year degree do?

A: Depending on what your plans are will determine how I will advise you.

S: I don't know what I'm really getting into.

A: Tell you what. Coordinate your work so that if you do decide to transfer, you can. Use the first year to come to that decision. Take the courses to help you decide.

S: Alright.

The instructor then spent about fifteen minutes counseling and advising her on how to consider accounting and other majors. She was unsure of her educational goals, and the advisor counseled her to plan her coursework so that if she decided to transfer she wouldn't lose any course credit. Furthermore, he explained what the difference between the four-year degree and the A.A.S. degree would mean in terms of employability.

This student pinpointed a process undertaken by some students. They are unsure of a major and decide by taking courses in different areas. Accordingly, "major shopping" for decision-making becomes an important part of the major selection process for these students. The advising process directs students to try the different fields and decide before getting in too deeply in any one program.

Principles of Accounting I and II

The discussion of students, instructors and classes is based primarily on the Principles of Accounting I and II courses for several reasons. These two courses are common requirements for both transfer- and terminal degree-oriented accounting majors. They are most likely the only accounting courses the transferring students take at this college. Also, the research indicated that student difficulties were more evident in these courses. Students who continued into the upper-level courses in the associate degree programs successfully handled the course material in contrast to some students in the principles courses who were failing or dropping out. Many students who successfully passed the first two courses increased the probability of finishing the program. Furthermore, students who exhibited difficulty with the principles courses either changed majors or were students from another discipline fulfilling degree plan requirements.

Principles of Accounting I and II are courses for acquiring a basic understanding of accounting. The courses cover fundamental concepts and procedures which an accounting major builds upon in advanced course work. The first course covers the first three-fourths of financial accounting, completed in the second course. Essentially, the text devotes two thirds of its chapters fo financial accounting while the rest discusses managerial accounting (covered in the last three-fourths of the second course). This structuring of content may cause difficulties for students who transfer. For example, a major university structures its two introductory courses differently from the community college. All of financial accounting is covered in one semester, and the second course is devoted entirely to managerial accounting; different textbooks are used for each course. Therefore, if a student at the community college only completes Principles of Accounting I and transfers before taking the second part, he likely is not prepared to perform the required work in managerial accounting at the university.

An accounting advisor at a major university reported that transfer students, from a community college where the course content was structured as described above, may experience difficulties and often will retake managerial accounting at the university before proceeding with upper-division accounting. However, the advisor noted that there was no data base on which to make this observation. She based it on her personal experience in teaching managerial accounting and on knowledge that some students who took their accounting at a community college were experiencing difficulty with the courses. In contrast, the community college administrators disagreed with the advisor's perceptions. They replied that the students are equipped to negotiate required work in the advanced courses after completing the principles courses.

The principles courses, essentially, cover financial and managerial accounting although financial receives more thorough coverage. It is recommended that students complete both courses at the community college before transferring (or take both at the university). Other than demanding work appropriate to the students' skill levels, the presentation of the material in both courses is similar. In the section entitled "Classroom Presentation", the mechanics of teaching and the delivery of lectures in the classroom are discussed.

Classroom Presentation

The mechanics of presentation in the classrooms revolve around usage of the textbook, blackboard, audio-visual equipment, and supplementary written materials. These items were used as instructional aids in presenting the lesson, and their usage varied by instructor. The textbook was used for referencing items and accounting journal placements and, on occasion, for verbatim reading to the class. Furthermore, some instructors used the book as a lecture guide.

The blackboard is used to emphasize terms and definitions, problem solutions, formulas and partial journal solutions. Should the instructors choose, sets of transparencies are available to be used on the audio-visual equipment (overhead projector) which consists of examples used in the book and other problems. The set of transparencies are part of the package provided by the publisher of the textbook; but instructors, if they desire, may make their own transparencies. Finally, supplementary materials included the syllabi and written handouts (usually problem solutions, explanatory material or examples of accounting usage in current events).

In several classes, articles in The Wall Street Journal were used as an introduction to the day's topic or related to accounting problems covered in class. The instructors read the news items to the class and explained how the material being covered related to them. The delivery style of individual instructors determined the frequency and purpose of the periodical. One instructor used it everyday to start his class and spent five to fifteen minutes on articles and relevant items. Occasionally, an article would serve as the focus for structuring the day's lecture. Other instructors used it only occasionally, some not at all.

Students mentioned that the use of the The Wall Street Journal and other accounting journals served to heightened their interest in accounting, and, particularly, in the material covered in the principles courses. It helped them understand how the methods they learned could be used, and it established the relevancy of the material for future application.

The overhead projector is a tool which may also be used to organize a visual presentation of material. As part of the textbook package, transparencies of content presented in the book are available for the instructors' use. The projector may be used in place of the blackboard, but there are some technical problems with its usage: (1) the journal listings projected on the screen are exact duplications from pages of the book, and the print is small. Consequently, students are unable to read it; (2) it does not allow the laying out of the entire process involved in the journal entries, (examples in the book also do not do this); (3) transparencies could be switched back and forth to show procedures and process, but it becomes distracting for the students; (4) when using transparencies, the instructor does not have to write on the board as often and this allows him to proceed at a faster pace. However, this gives students less time per item to take notes, and they are again more likely to miss some explanation while making notations.

Problems associated with the overhead projector in accounting classes suggest reconsideration of its value as a teaching tool. Blackboard usage to explain the items, shown on the transparencies, facilitates learning. Furthermore, a handout, which is a copy of the specific transparencies used, reduces some confusion in taking notes; additional notations may be made directly on the handout. The overhead projector saves time in that writing long accounting procedures on the board is no longer necessary; but, apparently, it seems to have negative effects on student responses and notetaking. Unless clear specific signals on the transparency or from the instructor indicate the location of the item, some confusion results as the students spend time looking, either on the screen or handout, and possibly not finding the location of the item. Again, the average and less-than-average students are most affected by these inconveniences because they are losing out on bits of information which might help them understand the topic and related problems.

Another tool used in the content presentation is the textbook. Its use as part of the lecture drew mixed responses among the students. If the instructor depended entirely on the textbook, the students reacted negatively. They cited boredom with the class, they criticized the instructor for lack of preparation, and they explained that strict adherence in the lecture to the format of the book (if they had been having difficulty with the presentation in the book) still left out information needed to understand the material. Students cited the examples in the book as unclear about details concerning placement in the journal entries or other examples. Some students could not understand the examples. This seemed to happen most frequently when steps were left out of the procedural sequence. Consequently, when no further information was given by the instructor, the students failed to comprehend computations and placements involved in the examples and in the working of similar homework problems.

On the other hand, when the textbook is used as a supplementary tool in the lecture, negative responses by students diminished. In its supplementary role, the book is referenced for further explanation of items rather than as a primary source of presentation. Instead of the book's examples, problems from other sources, either assigned or unassigned, are used. Furthermore, if the students are able to perceive the difficulty that they are experiencing with the material or with the example in the book and are able to question the instructor on it, the book may be used for explanatory purposes. Accordingly, the manner in which the instructors use the textbooks determines its acceptance by and effect on the students.

In the actual presentation of lessons by instructors, noticeable differences were observed. It would serve little purpose to describe individual styles; rather, a composite of those aspects of individual styles that seemed significant in soliciting students' responses are presented here.

The most significant item mentioned by students was the apparent organization of the lectures. A clear, orderly lecture enabled students to follow the presentation of content to a greater extent. This method involved a combination of blackboard usage with lecture presentation. First, the instructor wrote (in outline form) the material and points to be covered in the day's lecture, followed, and completed his plan. Second, while lecturing, the instructor used the blackboard to provide a visual reference to his content. The writing was clear, readable printing with an orderly and sequential flow. Each step was labelled to indicate the process that took place.

Besides labelling the steps, the instructor verbally added emphasis to the process to promote presentation clarity. The instructor signaled movement to the next steps. He did not leave to chance that the students would discern changes in the process of problem solution. The instructor accepted students' questions and answered them without haste and to their satisfaction. Furthermore, he readily discussed homework assignments and worked them on the blackboard. Finally, the instructor was available to students during office hours or after class. He emphasized that students should take advantage of his office hours; he was there to help with problems and/or difficulties related to the course, assignments and examinations.

The description is a composite of styles based on conversations with students about the instructional techniques and instructor behaviors that they find helpful. The clear orderly presentation enabled students to take notes that were useful for reference in studying. When the blackboard usage by an instructor is unorganized or when it is minimal or non-existent, notetaking by students is reduced. The better students were able to perform regardless of organizational level, but the average and poorer students were most affected by the two extremes.

According to the students, the organization of the lecture and orderly presentation on the blackboard helped the students follow the instructor. Haphazard placement of items, on the board, required sufficient knowledge/understanding of the concepts and process in order to follow the work. A few students in one class (observed one fall semester) were doing poorly, dropped the course, and registered the next semester with a different instructor. They described minimal blackboard usage in the first class and frequent use in the second. Furthermore, they judged the second instructor to be more organized and sequential in his lectures. When asked to compare the instructors and cite differences, they pointed out the number of notes they were taking. One student noted that he only took three pages of notes the entire time he remained in the first course (about 3/4 of the semester). He then showed a one half inch notebook almost completely full with notes (the semester was half over). He indicated that having more notes improved his understanding of the material. In the first exam this semester, he received a high B grade as compared with a failing grade last time. Other students showed similar results.

Organized boardwork seemed to follow from an organized sequential lecture presentation of the topic. If the instructors' presentations are analyzed in the absence of boardwork, a straight lecture technique is apparent and students take incomplete notes (while writing down one point, they missed the next). Furthermore, if the lecture is unorganized, points are not clearly emphasized and students experience difficulty deciphering the material. An example of clear, orderly blackboard usage coupled with an organized lecture highlights the issue. In this example, the topic is sales budgets in relation to the total cost of production. First, the instructor wrote the necessary terms on the blackboard and noted that they were relevant to the solution of this problem:

RMQSTD-Raw Materials Quotation Standard
RMPSTD-Raw Materials Price Standard
DLQSTD-Direct Labor Quotation Standard

DLRSTD-Direct Labor Rate Standard
FORSTD-Factory Overhead Rate Standard

He verbally repeated the terms. He added that the class will also calculate variances between the estimated costs and actual costs. He emphasized that journal entries in standard cost accounting have to account for differences in the estimates of production. His example of predicting costs involved the making of pies. First, he wrote that the company wanted to make one thousand pies.

1,000 pies

Then,

level of production in making pies:

10 oz. of flour
5 oz. of filling   equals 1 lb. of RM (raw materials)
1 oz. of sugar   RMQSTD

Therefore, "since the company wants to make 1,000 pies, the company needs 1,000 lb. of raw materials. The RMQSTD is 1 lb. per unit.

1 lb. of RM per pie X 1,000 pies = 1,000 lb. RM

Then,

RMPSTD = $2.00 per lb. of RM

Cost of RM = $2.00 per lb. of RM X 1,000 lb. RM = $2,000.00

While the instructor is writing everything on the board, he is verbally presenting it. Next, he adds the amount of labor required and its cost:

DLQSTD = ½ hour of DL (direct labor) per pie.

Then,

DL = ½ hour of DL per pie X 1,000 pies = 500 hours of DL

Also,

DLRSTD = $8.00 per hour

And,

DL cost = 500 hours of DL X $8.00 per hour of DL = $4,000.00

The instructor restated what had been calculated and added one more item:

FORSTD = $3.00 per DL hour

Therefore,

FO (factory overhead) cost = \$3.00 per DL hour X 500 DL hours
= \$1,500.00

All these items were written on the board and blocked out individually. Then he summarized the standards and added the total costs:

raw materials	\$ 2,000.00
labor	4,000.00
factory overhead	1,500.00
total	7,500.00

The instructor then indicated how variances could occur, e.g., the necessity of buying 1,100 lb. of RM to account for spoilage, pilferage, etc. He gave brief explanations for each and explained that the reality of the situation must be considered. He then stated the other point points and recalculated in the same manner. Finally, he revealed how every part of calculations are posted in journals. When he had explained everything, he performed a quick review of all tasks that were done on the board. Furthermore, he stated that the students may face a problem like this on the exam but with differences in the standards.

All of the above calculations remained on the board. The first set of calculations were positioned in the same area and labelled. Furthermore, they were boxed out with lines to delineate their purpose. Then, the calculations were performed for the variances, positioned in another part of the board and boxed. Also, the journal listing were posted on a different blackboard. The entire sequence remained on the board for students to copy.

The above discussion demonstrates a situation when all students may easily follow the lecture and take notes that may be referenced for information. In this situation, the students need only copy the exact information written on the blackboard. Otherwise, they can write additional notes if they deem necessary. Essentially, it is "spoon-feeding", but as such, it pinpoints a literacy skill that is not developed in some students; the ability to decipher unorganized or ill-prepared lectures by determining the important features of the presentation.

Furthermore, it posits that an instructor's style of presentation is factor affecting the performance of students. Moreover, it shows that organized and sequential use of the blackboard is an additional variable which can affect student reactions to course material.

The above described style was reported by students as being most helpful and stimulating. The style provided the students with material they needed to know to pass the course. However, in the less-preferred styles, the absence of clear distinctions indicating changes in the discussion leaves some students in a state of confusion. They missed the "signposts" warning of the next item. In the preferred style, the instructor labelled everything verbally and visually on the blackboard. Furthermore, the organizational style kept everything distinct. Deviation from this style created confusion and is exemplified in the blackboard usage. The instructor may work out some mathematical calculations mentally and only tell the class the derived number while failing to write the mathematical steps on the board. On the blackboard, the following is written:

Drawing		Capital	
300			3000
	300		1985
		300	

It indicates the entries that are made into the journal, but they are not labelled. The instructor provided verbal information about the meaning of the entries. Several things are happening: the drawing account has $300 which is transferred to the capital account; the drawing account must be credited for $300 and closed; and the capital account is debited for $300. The students must understand the meaning of debit and credit. It is necessary to know whether a left-hand or a right-hand entry is made for the first two terms. If the students are not clear on debits and credits, the above will have less meaning. Other than labelling the accounts, everything else is unclearly specified. A very simple example is used to explain the dilemma; but as problems get more complex, the difficulty increases in proportion to incomplete item designations.

Students note that when the instructor uses examples from the textbook, verbal signposts and more detailed information are required. Otherwise, students failed to receive all the information they needed. The textbook examples sometimes are noted on several pages; the instructors must clearly designate the page number. Occasionally, instructors were observed referring to examples according to type rather than by page number; students were confused as they tried to locate the examples discussed by the instructors.

Blackboard usage gives students more time to process the information and make note of it. But when little blackboard usage takes place and, instead, there are frequent verbal references to the text, the students lose out on more information. The first step in this information loss is in failing to hear the page number (or its omission by the instructor) and in pinpointing the specific referenced item. Because the student must spend time finding the page and item and make any necessary notes, all the information given is unprocessed. Next, after finding the location and item, the present information being given has less meaning without the previous information which was lost.

Classroom Interaction

The raising of questions by both the instructors and students has its purpose in the class presentation. From the instructors' standpoint, questioning is a strategy employed to stimulate thinking on the items being covered; its intent is to draw a response from the students.

However, only the more self-assured students attempt to answer these queries. Since the instructors do not single out students to answer the questions, fear of being called upon is not an issue.

Questioning, from the students' perspective, is an effort to clarify items not understood. The items may be from the textbook readings, assignment problems, the lecture and information queries about exams, due dates on assignments, etc. The instructor may open the period with a question session to permit students to clarify any doubts they may have on the material and processes. In these sessions, the questions were primarily about difficulties with assigned problems. Occasionally, a few students who were ahead of schedule with the reading would ask about items or examples in the textbook. During the lecture, questions concentrated on clarification of items, on differences between lectures and book examples, on alternative methods of solution, and concerning inabilities to understand the placement of items and the derivation of solutions.

The effects of an instructor's ability to answer questions was problematic. Some instructors would pursue an answer until the student(s) understood it (within a reasonable time limit). Others had difficulty understanding the students' questions, and their answers still left the students unenlightened. Some students could not phrase their questions in a manner that indicated to the instructor where the difficulty was or how they misunderstood it: if the students asked to have an example or problem explained because they failed to understand it, the instructor would explain the entire problem without having received an indication of what feature(s) was the cause of the difficulties. After an instructor's attempt at an answer, some students would not pursue the answer further, even if they still did not understand. On occasion, instructors would not answer students' questions sufficiently. They would only restate the book's description. Instructors urged students to see them after class or during office hours for clarification and explanation. The effect of instructor responses to student comprehension is not easily determined; other sources, e.g., peers, are utilized. The most noticeable effect of inadequate answering is a reduction in students' willingness to continue with questions.

Tutoring and Peer Support

Outside interaction with instructors may be utilized by students who need help. Often the instructor is unavailable to assist students except during office hours. A tutoring system is available in the developmental department. A tutor is provided to help students with accounting work. Students may use the tutor for help in solving problems. Tutors mentioned that most students attempt to do the work before coming for help. Occasionally, a student who has not attempted it will come in and try to get the tutor to work the problems for him.

Most students stated that they would use the tutor. However, only one of theinterviewed students reported seeking help in accounting; in his opinion, the tutor was not very effective. The qualifications of the tutors reveal some limitations in their ability to help students. One tutor revealed that he had only taken the principles courses but had several years of bookkeeping experience. While he expressed little difficulty in helping Principles of Accounting I and II students, he did not feel completely able to help students taking the upper level accounting courses. But since he had the answer book, he felt able to help them somewhat.

Although instructors and tutors were available for help, most students preferred their peers (fellow accounting students). Groups of two or more were seen on several occasions working on assignments. Individually, they attempted to solve the problems. As difficulties became apparent, they would exchange information. For some students, a preference for peer help took priority over seeking the instructors' help. They lacked self-confidence in their skills and did not want to appear inadequate when discussing assignments. At times they cited difficulty in understanding the assignments and in trying to explain the problem. Working with others, whose opinions of the students' adequacy did not matter, was preferable to opening themselves to the instructor for an evaluation of their skills.

Working with peers was a common study strategy for students who spent time on campus. Furthermore, the group method was used in preparation for exams. However, the group method was practiced more by Anglo students while minority students' tendencies were to work alone. Furthermore, Blacks and Anglos did not mix outside of class. Cultural differences may have prevented the formation of bi-ethnic, or multi-ethnic, study groups. Students did not express this during the interviews, but their actions gave this impression. While some Hispanic students were distrustful of Anglo instructors, they did not show a similar attitude toward Anglo students.

Literacy Tasks

Four literacy tasks were identified as being involved in successful completion of the courses. The first activity is reading of the textbook and other required materials. It is the primary step for students to begin understanding the material. Although some students may be able to learn just from listening to lectures, at some point all will have to make some effort at reading; their notes if nothing else. Next, the students must complete the problem assignments. While students do not directly lose points when they fail to read the topic assignments, failure to complete and turn in problems results in a ten to twenty percent reduction in their final grade. What has been read is applied in problem solutions. Students must decipher and understand the material in order to begin working on the solution to the problems. Also, reading and assignment completion are necessary for test preparation. The appropriate material and completed problems must be reviewed in preparation for taking the exam. Additional strategies may be employed to provide a more thorough coverage of material which will be covered on the exam. Finally, the literacy tasks are necessary in meeting the final objective: the completion of the examinations.

Reading. Students reported that the textbook was relatively easy to read. The grade level of the text, according to our readability measures, was tenth grade. However, the difficulties were with the application of the content. The students with difficulties were unable to explain exactly where it was occurring other than they did not comprehend. A clue to these difficulties is provided in the manner which students approached reading the textbook. The better students reported that they skimmed the chapter, looked at headlines, noted tables and glanced at the assigned problems in the back of the chapter's unit. They proceeded to read the book once without stopping to think about poorly understood areas. They wrote down the technical terms and their definitions. Then they reread the chapter more carefully and spent more time on those sections they understood least. Other students reported another method: review of the problems, consideration of problems emphasized by the instructor, and then concentration on only that material. But what they have in common is their systematic approach. The first method is thorough, and the student will learn everything. The second method is efficient; the student learns only what is needed to pass the course.

Students who used the first method were methodical about reading the material and normally read it prior to its discussion. Therefore, when they attended class, the material was familiar when presented by the instructor. If necessary, their preparation enabled them to clarify any ambiguities they had in their understanding of the topic. They did not have to attempt to comprehend unfamiliar terminology or concepts. Afterwards, these students were ready to work on the assignments. The latter method was concerned only with the necessary material. The material was usually read after the instructor had pinpointed the important items.

Assignments. The second literacy element is working the assigned problems. The first task has its effect on the second because it determines how prepared students are to solve the assignments. A strong element in the book is the use of example problems to illustrate the points being made. One student called it a "monkey see, monkey do" method of learning to find solutions. The examples are intended to help students understand the application of the individual parts in the wider context.

The completion of the assignments is a time-consuming activity and is indicative of the fact that all students reported spending more time on accounting than with any other subject. The method by which students solve the problems involves frequent referencing of the books and examples. It is necessary to establish a correct approach early on. In the following example, a student was asked to speak aloud while he attempted to solve a problem. It illustrates the procedures involved in seeking a problem solution:

> Okay. This transaction sold equipment for three thousand dollars cash. It has cost the company ten thousand dollars. Accumulated depreciation was eight thousand. So this is a brand new problem and I have to look back in the book to figure out how to....the three thousand dollars cash would be the debit. What matters is the change in working capital, so you have cost, ten thousand dollars, depreciation was eight thousand...So that would be two thousand difference between the two...they sold it for three thousand, so an increase of one thousand dollars...I need to figure out if it's from a separate source, different from regular operations or not. I think it is. I'm not sure. Go ahead and put it. On the second one, purchase marketable

> securities, two thousand dollars cash, hope to sell these next month for two thousand one hundred dollars cash to provide funds at that time. And think that would not be from regular operations. Investment in land for nineteen thousand, down payment of a thousand, and a note, three-year, five percent for the balance.

The description of the solution involves several actions. First, it requires referencing of the textbook and its examples. Second, decisions of how to classify the transactions are important because they determine how it will be entered and what journal is necessary. Third, it may require referencing previous units or chapters to obtain other necessary information.

Almost all students were able to solve the problems at an acceptable level. Instructors included notations on their assignments of errors and the correct procedures. Furthermore, the instructor's manual was available to check solutions.

Exam Preparation. If the lectures were organized, reading was not always necessary for solving the problems. If homework was avoided, successful performance on examinations was nearly impossible. The additional task of preparation for the exam was a strong requirement. Good classnotes were study assets. The effort and time students put into the first two tasks may be predictors for successful exam performance. While the appropriate chapters may be reviewed, the problems and the methods of solving them must be studied. During the exam, students cannot reference the textbook; consequently, they must be prepared to provide the proper procedures from memory. Reviewing may help remind students of procedures but some only depended on the completed assignments for their preparation.

In one class, students had the option of waiting just before the exam to complete the readings and all assigned problems (due on the examination date). A few students used this approach. The week before the exam, they "crammed" by reading all the chapters and working all assignments in a concentrated period of time. These students were able to score average and just above-average grades.

The students concentrated on the problems, but they also prepared for other types of questions: true/false, definitions, and multiple-choice. While instructors provided a warning about these kind of questions, the students, in general, did not expect them on the first exam.

When they were asked about the amount of time spent in study, several students indicated only about two or three hours. It was their perception that two or three hours was a long study period and that it should have been sufficient to do well on exams. Only a few students in each class, who received the highest grades, were able to perform excellently on the exams with only a few hours of study. However, they mentioned devoting considerable time and effort to reading the chapters and working the assignments. One instructor predicted who would turn in the best exams based on the quality of work they performed on the assignments; he was correct. A few of these students only needed a few hours preparation. In general, students who made above-average grades studied six to twelve hours for the exam. They reviewed the chapters and assignments and studied the detailed items which they thought would be probably be asked in the form of true/false, definitions and multiple choice questions. The students who spent only a few hours reviewing were surprised when they received "C's", "D's" and "F's".

The Examination. The examination tested the students accounting skills, acquired from reading and completing assignments, and their ability to recall the information. Seemingly, it also gauged their ability to withstand the stress and anxiety created by this evaluation of their skills: prior to the exam most students exhibited perceived nervousness (on one occasion a student became physically sick). Often students discussed their concerns about inadequate preparation (their own) for the exam with their peers.

The examination period was marked by the fast pace exhibited by students in working the problems and answering the questions. They furiously wrote and solved problems as they raced the clock to finish all required problems. As time went by, the pace slackened. During the period of furious work, as indicated by the noise level of pencils writing and paper shuffling, students were answering what they knew. As it slowed down, seemingly, they were attempting to answer those problems and questions about which they were least sure.

The problems on the exams were similar to the assignments the students had worked. Yet, the problems were unfamiliar to the students because they had not worked them before. Furthermore, they could not reference the book and had to make decisions typifying the transaction, what kind of calculations were required, and where placement, in journals, was needed. The only referencing materials allowed were tables, provided by the instructor, which contained information relevant to the calculation of figures.

Students exhibited different strategies in working the exam. One technique employed was to look over the entire exam before beginning in order to evaluate the items for familiarity. The most typical method observed was starting at the beginning and proceeding through the exam. If the students had difficulty with a problem, they attempted to solve it before attempting to work the next one which may have cost them points.

Generally, performing acceptable work on the assignments was related to the time students were able to spend reading and working the problems. Assignment completion was time-consuming but appeared to be the strongest measure of the students' preparedness for examinations.

Environmental Issues

The students face environmental influences external to the school context that affect their ability to devote their effort toward their schooling. In the accounting program, two seemed significant: employment and ethnicity.

Employment. The students' employment situation affects school performance. When students are already employed in a position which requires accounting duties, the employment has a more positive effect on their school work: students were already familiar with the methods and techniques. These students approached the classes with more confidence through experience. One individual, with twenty years of accounting experience, took both principles courses during the same semester: she said that experience and confidence allowed her to attempt it.

When students are employed in work unrelated to accounting, its tendency may be to negatively affect the students. The unemployment situation will influence the amount of time the students devote to their studies. A full course load and full-time work reduces time for studies per course. A reduced course load may increase the available time but the effects of working all day are important variables.

Ethnicity. When reference is made to ethnicity as a variable, two items must considered: culture and economic situation. Cultural differences exist among the three groups: Anglos, Blacks and Hispanics. Rather than describe those differences, we describe only those situations in which cultural conflict seemingly occurs.

Some Anglo instructors were not entirely comfortable teaching multi-ethnic classes. They were aware of differences (physical and performance) among the groups. Some made a concerted effort to overcome it; yet, by that extra effort, they identified differences which the minority students described as uncomfortable situations. During our observations, the Hispanic students did not actively participate in class discussion or utilize instructors' office hours. During an interview, one Hispanic female talked of her family's animosity toward Anglos and her resultant unwillingness to interact with Anglo instructors. She could not bring herself to trust them. While other hispanic students seemed unassertive, it appeared that some cultural restraints were preventing their willingness to participate. Black students expressed a distrust of Anglo instructors but did not report an unwillingness to interact with them. Concerns of discrimination and racial bias were not allowed to interfere (as much as possible) with increasing their learning through interaction with instructors.

Individuals' economic statuses are an indirect variable affecting schooling. In this city, social-economic-status is snynonymous with culture. The Black and Hispanic populations are lower on the economic scale in education, employment, and income. This has a direct effect on their employment status while attending school. The Black and Hispanic students may have to wait to start school until they have been employed for a period of time. This was evident in the upper-level accounting classes where most students were already employed before starting their college education. Financial aid may offset some of this disadvantage, but their present situation may have discouraged some students from seeking this information.

This discussion does not suggest that some Anglos are not face with similar situations. On the contrary, it seemed a class phenomenon based on economic level. Anglos were affected when they had a similar economic situation. On the other hand, Anglos were more likely to receive parental support while attending college than Hispanics and Blacks. Such support also indicated that these students began their schooling at an earlier age.

Bibliography

College Placement Council. CPC SALARY SURVEY. Bethlehem, Pennsylvania: March, 1981.

Horowitz, Louis. "An Evaluation of the Accounting Career Curriculum." JOURNAL OF BUSINESS EDUCATION. 1974, 49(7), 281-282.

King, Patricia H., and Samuel D. Morgan. "An Evaluation of Two-Year Accounting Programs at Selected Community Colleges." COMMUNITY/JUNIOR COLLEGE RESEARCH QUARTERLY. 1978, 2:265-280.

U. S. Department of Labor, Bureau of Labor Statistics. OCCUPATIONAL OUTLOOK HANDBOOK, 1980-1981 EDITION. U.S. Government Printing Office. Washington, D.C.: March, 1980.

CHAPTER X
LEARNING RESOURCES CENTERS

Sources of Data

The study of the Learning Resource Centers was conducted over two long semesters and involved formal interviews with three LRC staff members, as well as formal interviews with four instructors. In addition, there was data drawn from nine formal student interviews and seven formal instructor interviews that were conducted within other areas of the research sites. There was collection and analysis of LRC student brochures and memoranda to administrators and faculty; observation was conducted of LRC use by students and faculty at varying hours during the school day. Finally, there was data drawn from a meeting of an LRC director and several of the LRC staff, along with representatives of five content areas offered at one research site.

Overview

The narrative description of the Learning Resources Center (LRC) component of this report responds to these staff concerns:

(1) What special library services, instructional materials are being provided to accommodate culturally different students?

(2) To what extent are the sites' developmental and regular college programs teaching library use skills as integral parts of their programs? What types of programs are being offered?
(3) How are these skills being taught (organizational pattern)? By whom? What results (of skill development activities) are evident?

(4) Are the sites using the library staff to support program staff? How many minority group members are in this position (assigned to programs) or perform as a liaison between the library and development program?

(5) What evaluation is being done of library services, particularly in relation to the academic success of the participating students in terms of student achievement retention, improvement in attitudes, and other criteria?

(6) What is the attitude of the faculty and administration toward the library's role? What interfacing efforts (between LRC and programs of study) exist?

(7) What future efforts are planned by the LRC to improve its service to staff and students?

This chapter was written by Suanne Roueche; technical assistance was provided by Carol Truett.

Facilities

Campuses in the data collection sites are not equally blessed with Learning Resources Center facilities and services. For example, some of the campuses have full-service centers--print and non-print materials, media production, testing centers; others have dramatically limited collections and services; others have microfiche stations where "browsing" and "requesting" of books from other sources can be accomplished; others have no library services at all. All sites rely upon outside sources for supplementing their collections--local university and city libraries.

District wide, a limited number of library cards (100) are available at no charge to students who choose to use the local university library although reports of poor delivery time for the card-request forms to get into student hands were frequent. But any student can elect to purchase this card for $17.00;
it is non-expiring. Two dollars is non-refundable; fifteen dollars of that cost is refundable in the event that the student wishes to return the card. Most librarians and some instructors interviewed about the use of these cards had positive, supportive comments that students should take advantage of that service. Negative comments typically dealt with the enormity of the effort and the number of library skills demanded of the student in the event that he visits the libraries. Concern was that students would be "turned off" as their skills would not provide them with easy access to research documents, non-print materials, and so forth. In addition, college librarians and instructors suggested that tours might be arranged for small groups to visit the university library facilities and receive brief instruction.

There is some confusion about exactly how the students get the information about the library cards. Some responses were: they are mentioned at Orientation (although observation of presentations do not record such information); individual instructors would know about the cards and mention the service to their classes; the LRC Handbook provided the notice about cost and acquisition procedures, and notices were posted on doors around the LRC.

Library Skill Development: Some Literacy Issues

There is a strong concern among librarians and instructors that students enter and leave the college without acceptable library skills. Developmental instructors expressed desires for assessment of library skills during Orientation; however, as assessment patterns continue to document that only a small percentage of entering students are involved in these procedures, as no "teeth" are in recommendations resulting from assessments, it is unlikely that the effort would produce much change in library skill development efforts. Another suggestion by librarians is the assessment in classes of student skills and arrangements with the instructor to provide time for librarians, or for himself, to give library instruction.

Presently, at one site, library skill development courses are offered in existing developmental course schedules, but the enrollment is never of more than three or four students. Therefore, the course is offered within the same time period as reading, study skills, and/or spelling courses to avoid class cancellations. The course is modularized--students work through at their own pace with activities that take place in the library (using slide/tape presentations, reference materials, and so forth). At another site in this same district, a library skills unit is offered within an existing study skills course. While instructors did not feel that this was the most effective approach, lack of students prompted this small-scale effort.

At another site (several campuses), a pilot project will be initiated in the fall, 1980. In an attempt to answer the question: does it help students be more successful learners (grades or attrition as indicators) if they receive library instruction, one class or one teacher in each division will be approached as to willingness to allow librarians into the classroom to provide library instruction as an integral part of the learning activities. If the project is successful, the plan is to expand the number of classes and co-opt other instructors into building library instruction into their courses.

Questions about proper instruction of skills courses--housing and content, instructional strategies--include the who controversy. Librarians envision themselves in the role of instructors for these skill courses; developmental instructors believe that such basic skill development is their responsibility and at best a librarian could be allowed to team-teach the course with a Parallel Studies instructor. In fact, one instructor commented that he did not understand why the librarians would request to teach the course; perhaps it was because "they wanted faculty status." According to librarians, an alternative for the library skills course or another effective skill development effort would be a combination writing/ library skills class, team-taught by composition teachers and librarians

No matter the present structure, however, enrollment is a dramatic indication of low interest. Other indications are: students do not recognize the need for library skill development, or they recognize the need and prefer to do nothing, recognize it but prefer to avoid a "no-transfer credit" course (strongly suggested by one developmental instructor), or assume/know that the skill development would be a waste of time in light of course demands.

The low priority attributed to library skills gets to the heart of the larger issue of literacy demands. Librarians and instructors equally noted that students infrequently are required to do library work in order to accomplish course objectives. Some instructors commented that they made efforts in their classes to discover whether or not students wished to develop library skills or needed to do so. Librarians commented that, for the most part, the library was used more for studying than for reference work or for completing assignments that required use of library facilities. Few instructors appear to express interest or show enthusiasm for work in building library skills in their students or generating interest-getting units on library use.

One technical writing instructor noted that two weeks are set aside for library work toward the writing of the major research paper in this course; but his basic notion was that the students did not use the library at all, rather materials gleaned from work-related areas to include in the composition. No preparation for the library work was made; there was no effort to assess the quality of the library work. Apparently, time allowed for "library work" is actually for work anywhere at all, the unspoken permission to complete the research papers (a formal report requiring an abstract of an article, another report requiring the use of at least three sources) without using library facilities.

Finally, many programs of study house their own materials, whether the materials have been purchased with their department or with library/institutional funds. As well, many vocational/technical courses house their own equipment, print and non-print materials. While these practices of keeping materials close to the source of their best utilization is encouraged by the LRC personnel, these practices (according to one librarian) tend to interfere with students getting to the library proper.

Collections

The quality of the library collections was assessed as "adequate" by most instructors who required students to use it, as "inadequate" to supply students demonstrating low reading abilities with print materials. Librarians commented frequently that they were feeling more and more press to learn about all college programs, but particularly learn about the developmental efforts. They cited frequent contact with students in developmental courses whose assignments (library) were complicated by the lack of books written at the proper reading level. One sociology instructor commented that he keeps "layman-type reading materials on reserve" in the library for his low reading ability students. Because his text is written at the tenth-grade level, he provided the library with reserve materials (from his own library) that are "primer types" offering the same content as the class text. In addition, he makes audio tapes of the text material and puts them in the library for student use.

Another comment was the library does not have specialized materials; for example, an English instructor did not feel that the library collection was adequate for supplying students with sufficient sources to complete even a brief literacy criticism assignment. The "solution" to the problem was to recommend use of a nearby university library, possibly a compounding of the problem already created by the assignment. In this case and others, such statements as "but I think the library does well with its budget, limited space..." were common. (It must be noted that all LRC personnel identified lack of funds as a major constraint against improved operation and collection.)

Interfacing

Librarians expressed the need for better interfacing between programs and the LRC--for materials selection, services. Documentation from one site described an "interest" committee (for materials selection) with these members: LRC directors, media specialists, developmental administrators, faculty members, some part-time and full-time minority students. Its impact on selection procedures cannot be determined as there appears to be some confusion about its functions and little evidence as to specific outcomes, other than some comments from faculty that they sometimes fill out forms for the evaluation of library facilities and collections and are asked to make suggestions (for improvement and for materials). Another site housed an LRC committee commissioned to solicit orders for materials and equipment, prioritize orders, and purchase requests, exists; however, developmental instructors noted that they were not members of that group. Concern by instructors, however, was that they did not have enough input to what they need. Some faculty members commented that they had never provided input to material selection; the materials had just "appeared some time before." Perceptions--based on comments of intent and effort--seem to be at odds. But concensus was that improved interfacing between library staff and classroom instructors, with emphasis on coordinating syllabi and course requirements (curriculum) to library services, is a strong recommendation by LRC administrators.

One district site houses its developmental courses in content area divisions--e.g., math in mathematics department, writing skills in the English department. Library materials are purchased from lump sum budgets by division; therefore, concerns that the LRC's do not have strong collections for the developmental students must be resolved by institutional and divisional commitments to earmark significant portions of these budgets to correct these deficiencies.

Support Activities

Presently, however, primary services provided to instructors, as noted by both instructors and librarians, are: the supplying of films, repair of equipment (whether or not the equipment belongs to the LRC), equipment loans, loans, design/production of audiovisual materials, provision of facilities for reserve materials.

Librarians have placed audiovisual materials (slide/tape presentations) on the shelves for easy student access, eliminating the necessity of making formal requests of the staff. In addition, efforts to remove potential barriers--and to provide library instruction--are evident in the self-instructional posters accompanying major library offerings--vertical file, tape duplication center, card catalog, and so forth. One campus has a "Peep Show" stationed just inside the front door; this slide/tape presentation is accompanied by easy-to-read instructions for putting the machine into operation. The presentation displays various LRC services and facilities and gives simple directions for effective use of the library. The librarian noted that its previous title, "Introduction to the LRC," may have encouraged the infrequent viewing; but the "Peep Show" title increased the number of viewers dramatically. As students stop to view the presentation, they are more likely to notice the handbook and other available library materials displayed near the entrance. Other campuses house their library orientation slide/tape presentations in the library proper.

At one collection site the LRC handbook has been prepared for use district-wide; however, differing levels of familiarity with this booklet were documented in interviews. A request for a handbook at one campus produced a booklet; the same request at another produced a one-page information sheet outlining facilities and another explaining the classification system (given to students at Orientation). Rationale for the 8½ x 11 size was for its easy insertion into loose-leaf binders. It appeared that the booklet is regarded as a "campus" product and is not for use on other campuses although the staff members for all campuses are listed in the index, and room numbers on the various campuses appear for specific directory information.

Efforts have been made to reduce the library "terminology" to a generally negotiable, common usage level in most of the LRC student information materials. For example, the terms "magazines" rather than "periodicals" and "pamphlet file" rather than "vertical file" are included in the text. However, some terms in materials were not defined--e.g., microfiche and microfilm. Most materials are revised frequently; in fact, one revision has recently been completed as reports indicated that the last year's cover was too "cutesy."

Interviews documented that circulation of student information materials among instructors were scattered. Some instructors did not know that specific pieces of information existed; other instructors admitted that they had "heard about but not seen (it)." No one mentioned that self-interest had been sufficient to warrant individual investigation. Student reactions to these materials have not been documented.

Instructors are not provided with library instruction, except in those instances when an instructor may observe brief orientation sessions conducted by a librarian in their own classrooms. At the beginning of each semester, however, librarians send announcements to all instructors that they would be willing to visit their classes and explain the functions of the LRC. Comments were that the response to the invitations is "great" and that many instructors left "standing" invitations for the classroom visit. However, a general perception is shared by LRC staff: few instructors know enough about library skills or have sharpened their own to the point that they can give proper instruction to their own students; in addition, instructors who do make some instructional efforts typically pass along erroneous information. Instructors, while displaying varying levels of confidence in their own abilities to provide library instruction to their classes, suggest that new instructors should receive information about LRC services at the time of their staff orientation.

A central source at one district site distributes a publication about the LRC to all faculty, mailed through an arrangement with the personnel office. It is a rather large brochure giving information on library and learning resource services: general information about the college and LRC locations, about books and borrowing, about available reference services, about instructional aids for classroom use (equipment, reserve privileges, and so forth), about specific equipment for improvement of instruction.

Testing centers operate at one district site under the auspices of the LRC. Students are directed to these centers to take make-up tests, individual unit tests that cannot be completed in classes, and so forth. Complaints about lack of space were common, as were suggestions that clarification of procedures for placing tests in the center would create more utilization of the facility by all instructors. In light of present space restrictions, however, the latter concern perhaps should not be a high priority.

Physically, the testing labs have study carrels arranged for maximum testing manageability. On the average, the centers serve 300-500 students per week and double that number during the mid-term examination period. Campuses do not follow a consistent pattern in housing their testing centers; while space availability is typically a prime factor in the colleges' decision for any program's physical location, all testing center placements appear to reflect an effort to keep the LRC components intact and--perhaps--provide for additional student exposure.

There are noticeable inconsistencies in instructor allowances for student testing; testing center directors note that some students remain at work over an examination for hours; others must work under strict time constraints. (No programs could be identified as characteristic of testing patterns.) In addition, the directors report that they take the lead in designing guidelines for test-submission to the center (acceptable vs. unacceptable test forms). While examples of unacceptable tests were few, they typically reflected concerns with an instructor's illegible handwriting, unusable/undecipherable test answers that made scoring the student responses impossible.

One copy of the test results is sent to the instructor; one copy is kept in the testing center's file. It was reported that sometimes instructors misplace the results which have been sent forward by the testing center. This filing system has eliminated the need for student re-tests resulting from instructor error. Recent and increasingly heavy demands on the testing centers have forced the center directors to route tests through department chairmen for improved test scheduling.

The student population mix in the library is characterized by librarians and by instructors as: students enrolled in the humanities, sciences, the arts, and vocational/ technical courses (one district site noted that vocational/technical students were heaviest users); foreign students whose greatest interests are in using the language tapes; non-working, or part-time working students who have more time to remain after or come before class to use the facilities; few handicapped students as no materials are available for the blind and few for ESL, and as wheelchairs are not accommodated on all campuses; and few ABE/GED students as they have no check-out privileges from the colleges' libraries (they are encouraged by the librarians to use the public libraries and acquire library cards). Seating patterns follow no identifiable pattern; students appear to sit with friends (mixed ethnic groups) or wherever they can find a place in the crowded seating areas. Minority students appear to use the library in the same proportions as they are represented in the campus population.

In one district, as ABE/GED students are served on an open entry/ open exit basis and pay no tuition, administrative policy dictates that these students may not be allowed to check books out of the college LRC's. An administrative interview confirmed that ABE/GED students also were not allowed to take textbooks home (they could purchase them if they wished) as the students frequently disappeared for long periods of time or did not return at all. Similar behaviors with library books would create a more sizable problem than that created in the classroom situation. Librarian concern for the ABE/GED students who make the effort to visit the LRC has resulted in suggestions for one-month or three-month cards, or month-to-month card arrangements. No decision has been reached. At another district, the LRC director noted that while the ABE/GED students are not given ID cards (which would allow check-out privileges at the college libraries), the LRC allows them to take a book if "they've got a driver's license, a printed check, a friend, envelope with their address on it...."

Sanctions

The LRC has only two sanctions for misuse of library facilities: fines and transcript holds. Fines of $5.00 are charged on books that are three weeks overdue! If the books are not returned, whether overdue or on recall for another student, the delinquent student will have to pay his fine at the library before the colleges will release a copy of his college transcript. Librarians noted that their policies were not extremely harsh (they allow one week grace period) and that they encourage responsible behavior--if a book is going to be late coming in, the student need only call to let the staff know and arrangements are made for a scheduled return; no fine will be levied. No visit or call, however, results in an overdue fine.

Staff

Librarians were candid about their "image" also about their efforts to combat the stodgy, aloof stereotypes that students typically have of them. They were aware that many students feel that they are "bothering" the librarians if they ask them questions; hence, one librarian suggested that all reference librarians might wear little signs saying, "They pay me to tell you things."

Admittedly, they perceived that some staff development training was in order in their own ranks--to combat condescending vocal intonations, to provide insight into working with culturally different students. However, staffing is very thin at all campuses; if the staff development activities included all of the librarians, fear was that the library would have to close altogether during those sessions.

The large majority of full-time LRC personnel are Anglo; some part-time staff members represent minority groups. However, by and large, Black and Hispanic students do not have access to "ethnic matches" with members of the library staff. Moreover, there are no librarian role models here for career planning.

One librarian commented that perhaps the role of the librarian is too "passive" for a Black male or any Black student, that it is not a very positive role to fill in society. Acknowledgement of the scarcity of librarians in any minority group was as common as the perception that attitudes--not ethnicity--was important to culturally different students. However, interest in promoting library science among minority groups was a verbal high priority (no evidence in proactive behaviors was apparent, however). Admittedly, the first step--and perhaps the most promising--might well be the staff development effort.

General Comments

Communication between the LRC and the teaching staff could be improved; materials selection and the prioritizing of these selections should be effected by specific administrative policies. Particular attention should be directed toward choosing materials that are of interest and value to students reading at low reading levels, particularly materials that have an adult focus on content. Collection decisions, then, should/could involve students as well.

A systematized procedure for assessing library skill development/need should be instituted. If students, in actuality, do not have to use the library to complete assignments--and the philosophy of the importance of developing library skills is to be institutionalized--then efforts to combine librarian and instructor expertise in curriculum and instructional planning is of prime import. LRC personnel noted that materials selection in a vacuum, without input/direction from "customers"teachers and students-most likely will be a waste of money and effort; therefore, they encourage response to requests for requisitions. In addition, policies to "put teeth" into assessment outcomes should be developed and implemented.

It is important that efforts be made to encourage increase in library use; it must start at the grassroots level--in the classroom. Instructors should be proactive in requiring library work; students should be assessed for library skills and instructor-library interfacing should provide for discrepancies between actual and desired library skills levels.

A lack of resources in the LRC may very well influence instructional strategies and literacy demands. If the library lacks sufficient numbers of and/or significant types of resources, then instructors may request other activities from students that will be more in keeping with their abilities, schedules, and college resources. In addition, librarians may be strapped with a singular delivery system--a system which, by design, predetermines that some groups will be served less well than others. To quote an LRC director: "...we still fall back on print to relay what's available." Institutional commitment to expanding, creating improved LRC services may very well provide impetus toward more targeted responses to literacy concerns.

APPENDIX A

A COMPUTER-BASED READABILITY ANALYSIS

Based on some preliminary investigation, NIE staff perceived a possible problem with the reading level of community college material. Research indicates that, nationally, community college students read at the ninth grade level or below; however, the average readability of the college documents examined was eleventh grade. In order to investigate this disparity further, we proposed making readability analyses of all available material which large numbers of students must negotiate. The problem with this undertaking, however, soon became apparent. Readability analyses were time-consuming to make; there was a great amount of print to consider, and time and staff were limited. Thus, it was decided that the ideal scope of work would have to be severely limited. Luckily, the serendipitous discovery of Dr. Charles Watkins' interactive readability analysis for the computer modified this decision.

Watkins' program, written in 1973, simultaneously applied four readability analyses, selected for their adaptability to programming (Flesch, Dale-Chall, Farr-Jenkins-Patterson, and Danielson-Bryan), to text passages which had been typed into a terminal. Then, by computer, NIE researchers could analyze materials quickly and thoroughly.

The program, written in FORTRAN for the University's Data Control computers, has a large self-teaching component; that is, it tells the novice user exactly what to do to make the analysis. For example, given the number of pages in the material to be analyzed, the computer program automatically draws a random sample of ten pages for the user. Specific instructions for typing in text are given by the program as well as information on how to end the analysis. The program provides readability estamates of each sample of text and a summary of results averaged over all the samples.

Using the program to analyze this abstract (through the preceding paragraph), the following output was obtained:

```
TOTAL WORDS                  334   PERCENTAGE DIFFICULT WORDS   47.31
TOTAL SENTENCES               17   PERCENTAGE TECHNICAL TERMS    0.00
AVERAGE SENTENCE LENGTH            PERCENTAGE OF SENTENCES
   (WORDS)                 19.65      WITH PASSIVE VERBS        58.82
AVERAGE WORD LENGTH
   (SYLLABLES)              1.77
AVERAGE WORD LENGTH
   (LETTERS)                5.58
```

```
READABILITY MEASURE          SCORE         GRADED READING LEVEL

FLESCH (READING EASE)        37.39                 11
DALE-CHALL                   11.59                 20*
FARR-JENKINS-PATERSON        27.06                 12
DANIELSON-BRYAN              48.41                 11
```

In addition to readability scores, the program supplies a verbal evaluation of the material and makes suggestions as to how the writer might change the text to make it more readable. For this abstract, the computer wrote:

WORDS LONGER THAN TWELVE LETTERS OR FOUR SYLLABLES ARE USUALLY DIFFICULT TO READ. IN THIS PASSAGE THERE WERE 6 SUCH WORDS. SHORTER WORDS IMPROVE READABILITY.

LINE	WORD	LINE	WORD	LINE	WORD
12	INVESTIGATION	23	SERENDIPITOUS	29	ANALYZING
21	TIME-CONSUMING	25	SIMULTANEOUSLY	34	AUTOMATICALLY

SENTENCES OF MORE THAN THIRTY WORDS ARE GENERALLY DIFFICULT READING. IN THIS SELECTION THERE ARE 2 SUCH SENTENCES. SHORT SENTENCES ARE EASIER TO READ.

SENTENCE	WORDS	LAST LINE
1	39	5
12	33	28

SUMMARY: THIS SELECTION IS DIFFICULT, COLLEGE SOPHOMORE.

*The Dale-Chall results in a higher score when the reading material includes technical vocabulary.

APPENDIX B

During the course of this research, some instructors acknowledged changes in their approaches to content, increased awareness of student interactions, and so forth. While most chose to visit with researchers informally about these new directions or ideas, as well as about changes that they had made in their classes, some wished to supply us with written comments that could be appended to this report. Most good intentions dissolved in the face of time pressures; however, one response did reach us in time to be included. It is appended here.

From the Math B instructor:

As far as things that I am doing differently this semester in the Basic Math Skills course, the following list applies:

1. I have included my own addition to the department first day handouts stating my approach to mathematics and my purposes for the class.

2. My attendance policy remains the same as before, but more students are coming to class and are consistently letting me know when and why they are not in class.

3. The homework policy has been changed somewhat. This semester I am giving "notebook quizzes" each week. These are five ten-minute time periods where the students are to copy the problems from their homework notes. These notes are to contain, at this point, only correct solutions, as students were to indicate problem areas and make sure that they were handled in the class discussion, resulting in the correct solution being copied into the notebook.

4. My teaching method of asking lots of questions has not changed; however, I am more and more aware of student interaction with the discussion by the nods and looks of pleasure on the faces of students who are not necessarily audibly answering, but are indicating in other ways that they are with me and understand what's going on.

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